

AD-A214 144

1

ELECTROSTATIC DISCHARGE SUSCEPTIBILITY DATA

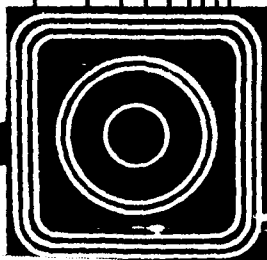
Volume I

DTIC
ELECTE
NOV 06 1989
S D *cs*

DISTRIBUTION STATEMENT A

Approved for public release
Distribution Unlimited

RAC



Reliability Analysis Center

The information and data contained herein have been compiled from government and nongovernment technical reports and from material supplied by various manufacturers and are intended to be used for reference purposes. Neither the United States Government nor IIT Research Institute warrant the accuracy of this information and data. The user is further cautioned that the data contained herein may not be used in lieu of other contractually cited references and specifications.

Publication of this information is not an expression of the opinion of The United States Government or of IIT Research Institute as to the quality or durability of any product mentioned herein and any use for advertising or promotional purposes of this information in conjunction with the name of The United States Government or IIT Research Institute without written permission is expressly prohibited.

Ordering No. VZAP-2

ELECTROSTATIC DISCHARGE SUSCEPTIBILITY DATA OF MICROCIRCUIT DEVICES



Volume I

1989

Prepared by:

William H. Crowell
Reliability Analysis Center

Under contract to:

Rome Air Development Center
Griffis AFB, NY 13441-5700

Accession For:	
NTIS CRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification:	
By <i>P.C. 125.00</i> NTIS	
Distribution / <i>M.F. from DTIC</i>	
Availability Codes	
Dist	Avail. and/or Special
<i>A-1</i>	<i>24</i>

Reliability Analysis Center

The Reliability Analysis Center (RAC) is a Department of Defense Information Analysis Center sponsored by the Defense Logistics Agency, managed by the Rome Air Development Center (RADC), and operated at RADC by IIT Research Institute (IITRI). RAC is chartered to collect, analyze and disseminate reliability information pertaining to systems and parts used therein. The present scope includes integrated circuits, hybrids, discrete semiconductors, microwave devices, optoelectronics and non-electronic parts employed in military, space and commercial applications. In addition to data collection and analysis attributes, RAC is also chartered as being a center for all aspects of reliability engineering and related disciplines including: Reliability, Testability, Statistical Process Control, Electrostatic Discharge, and Total Quality Management.

Data is collected on a continuous basis from a broad range of sources, including testing laboratories, device and equipment manufacturers, government laboratories and equipment users (government and non-government). Automatic distribution lists, voluntary data submittals and field failure reporting systems supplement an intensive data solicitation program.

Reliability data and analysis documents covering most of the device types mentioned above are available from the RAC. Also, RAC provides reliability consulting, training, technical and bibliographic inquiry services which are discussed at the end of this document.

**REQUEST FOR TECHNICAL
ASSISTANCE AND INFORMATION
ON AVAILABLE RAC SERVICES
AND PUBLICATIONS MAY BE
DIRECTED TO:**

**Reliability Analysis Center
P.O. Box 4700
Rome, NY 13440-8200**

**Technical Inquiries: (315) 337-9933
Non-Technical Inquiries: (315) 330-4151
(315) 337-0900**

**Autovon: 587-4151
TeleFax: (315) 337-9932**

**ALL OTHER REQUESTS
SHOULD BE DIRECTED TO:**

**Rome Air Development Center
RBE/Preston R. MacDiarmid
Griffiss AFB, NY 13441-5700**

**Telephone: (315) 330-4920
Autovon: 587-4920**

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1a. REPORT SECURITY CLASSIFICATION Unclassified			1b. RESTRICTIVE MARKINGS		
2a. SECURITY CLASSIFICATION AUTHORITY			3. DISTRIBUTION/AVAILABILITY OF REPORT Approved for public release; distribution unlimited. Available from RAC or DDP <i>NIS</i> Microfiche only available from DTIC.		
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE			5. MONITORING ORGANIZATION REPORT NUMBER(S)		
4. PERFORMING ORGANIZATION REPORT NUMBER(S) VZAP-2			7a. NAME OF MONITORING ORGANIZATION RADC/RBE		
6a. NAME OF PERFORMING ORGANIZATION Reliability Analysis Ctr.		6b. OFFICE SYMBOL (If applicable)	7b. ADDRESS (City, State, and ZIP Code) Griffiss AFB, NY 13441-5700		
6c. ADDRESS (City, State, and ZIP Code) PO Box 4700 Rome, NY 13440-8200		9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER F30602-87-C-0228			
8a. NAME OF FUNDING/SPONSORING ORGANIZATION DLA/DTIC		8b. OFFICE SYMBOL (If applicable) DTIC/DF	10. SOURCE OF FUNDING NUMBERS		
8c. ADDRESS (City, State, and ZIP Code) DTIC Cameron Station Alexandria, VA 22314-6145		PROGRAM ELEMENT NO. 65802S	PROJECT NO. 1.0	TASK NO.	WORK UNIT ACCESSION NO.
11. TITLE (Include Security Classification) Electrostatic Discharge Susceptibility Data					
12. PERSONAL AUTHOR(S) William H. Crowell					
13a. TYPE OF REPORT		13b. TIME COVERED FROM TO		14. DATE OF REPORT (Year, Month, Day) 1989, March 13	
15. PAGE COUNT		16. SUPPLEMENTARY NOTATION Hard copies available from Reliability Analysis Center, PO Box 4700, Rome, NY 13440-8200 (Price: \$125) DTIC will provide microfiche copies at standard microfiche price. DTIC source code:			
17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)		
FIELD	GROUP	SUB-GROUP	Electrostatic Discharge (ESD)		
			Electrostatic Discharge Sensitive (ESDS)		
			Integrated Circuits; Discrete Semiconductor		
19. ABSTRACT (Continue on reverse if necessary and identify by block number) This publication contains Electrostatic Discharge (ESD) susceptibility data of electronic devices and is an update to the VZAP-1, the 1983 RAC ESD data compendium. Detailed susceptibility data is presented along with the ESD classification in accordance with MIL-HDBK-263 and MIL-STD-1686A for approximately 4,300 devices. This data is useful in the establishment of an ESD control program. The data contained in this publication is a product of the Reliability Analysis Center's VZAP data base, which is intended to be a central repository of ESD Susceptibility Data.					
20. DISTRIBUTION/AVAILABILITY OF ABSTRACT <input type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT <input type="checkbox"/> DTIC USERS			21. ABSTRACT SECURITY CLASSIFICATION		
22a. NAME OF RESPONSIBLE INDIVIDUAL Steven J. Flint, RAC Technical Director			22b. TELEPHONE (Include Area Code) (315) 337-0900		22c. OFFICE SYMBOL

PREFACE

The purpose of this document is to make available electrostatic discharge (ESD) susceptibility test and classification data. This data is much needed by industry and government equipment designers to enable them to assess their equipments' vulnerability to the ESD threat, to assist in the establishment of ESD control programs, and to comply with such requirements as MIL-STD-1686A, "Electrostatic Discharge Control Program for Protection of Electrical and Electronic Parts Assemblies and Equipment (Excluding Electrically Initiated Explosives Devices)."

This document was prepared as part of the Reliability Analysis Center's efforts to provide its user community with new and needed information in the field of electronic device reliability.

Contributing to this effort were William Denson, David Mahar, John Puleo and Shawn Gentile.

TABLE OF CONTENTS

	<u>Page</u>
SECTION 1.0 INTRODUCTION	1
1.0 INTRODUCTION	3
1.1 BACKGROUND	3
1.2 USE OF THIS DATA	3
1.3 INTERPRETATION OF DATA	7
1.4 CONVERSION OF EMP OVERSTRESS TEST DATA TO THE ESD HUMAN BODY MODEL	9
1.5 VARIABILITY ASSOCIATED WITH CONVENTIONAL TEST METHODS	11
1.6 SUMMARY AND CONCLUSIONS	12
SECTION 2.0 FAILURE VOLTAGE PROFILE	15
2.1 SUSCEPTIBILITY OF VARIOUS TECHNOLOGIES	17
2.2 SUMMARIZED DATA - VOLTAGE VS. TECHNOLOGY	34
2.3 PERCENTAGE OF FAILURES PER TECHNOLOGY	35
SECTION 3.0 DETAILED DEVICE SUSCEPTIBILITY TEST DATA	39
3.1 MICROCIRCUIT SUSCEPTIBILITY TEST DATA	55
3.2 DISCRETE SEMICONDUCTOR SUSCEPTIBILITY TEST DATA (<i>Volume II</i>)	373
3.3 PASSIVE COMPONENT SUSCEPTIBILITY TEST DATA (<i>Volume II</i>)	519
SECTION 4.0 PART NUMBER INDEX (<i>Volume II</i>)	533
SECTION 5.0 DATA SOURCES (<i>Volume II</i>)	559
SECTION 6.0 REFERENCES (<i>Volume II</i>)	581

APPENDICES (VOLUME II)

APPENDIX A	DERIVATION OF DATA CONVERSION FORMULA	589
APPENDIX B	REPORTING SENSITIVITY DATA	595
	• DEFINITION OF VZAP TEST PARAMETERS	599
APPENDIX C	ADDITIONAL RAC SERVICES	603

LIST OF TABLES

		<u>Page</u>
TABLE 1	PERCENTAGE OF FAILURE RECORDS PER TECHNOLOGY-IC	37
TABLE 2	PERCENTAGE OF FAILURE RECORDS PER CIRCUIT TYPE-DISCRETE	38
TABLE 3	MANUFACTURER LISTING	43
TABLE 4	FAILURE CRITERIA LISTING	44
TABLE 5	TEST REMARKS LISTING	47
TABLE 6	GENERAL REMARKS LISTING	53
TABLE 7	DATA ITEM DESCRIPTION DI-RELI-80670 (<i>Volume II</i>)	597
TABLE 8	VZAP TEST PARAMETERS (<i>Volume II</i>)	601

LIST OF FIGURES

FIGURE 1	EMP VS. ESD DATA COMPARISON	10
FIGURE 2	FAILURE DISTRIBUTION FOR TESTER #1	13
FIGURE 3	FAILURE DISTRIBUTION FOR TESTER #2	13
FIGURE 4	STEP-STRESS RESULTS FOR 74F04	14
FIGURE 5	STEP-STRESS RESULTS FOR 74F175	14
FIGURE 6	FAILURE VOLTAGE PROFILE-TTL	19
FIGURE 7	FAILURE VOLTAGE PROFILE-STTL	19
FIGURE 8	FAILURE VOLTAGE PROFILE-LTTL	20
FIGURE 9	FAILURE VOLTAGE PROFILE-HTTL	20
FIGURE 10	FAILURE VOLTAGE PROFILE-LSTTL	21
FIGURE 11	FAILURE VOLTAGE PROFILE-ADVANCED STTL & LSTTL	21
FIGURE 12	FAILURE VOLTAGE PROFILE-MOS	22
FIGURE 13	FAILURE VOLTAGE PROFILE-NMOS	22
FIGURE 14	FAILURE VOLTAGE PROFILE-CMOS	23
FIGURE 15	FAILURE VOLTAGE PROFILE-HMOS	23
FIGURE 16	FAILURE VOLTAGE PROFILE 1FET	24
FIGURE 17	FAILURE VOLTAGE PROFILE-BIFET	24
FIGURE 18	FAILURE VOLTAGE PROFILE-ALL TTL	25
FIGURE 19	FAILURE VOLTAGE PROFILE-ALL MICROCIRCUIT	25
FIGURE 20	FAILURE VOLTAGE PROFILE-BIPOLAR AND IIL	26
FIGURE 21	FAILURE VOLTAGE PROFILE-BIPOLAR AND MOS	26

LIST OF FIGURES (CONT'D)

	<u>Page</u>
FIGURE 22	FAILURE VOLTAGE PROFILE-ALL FET 27
FIGURE 23	FAILURE VOLTAGE PROFILE-ALL MOS 27
FIGURE 24	FAILURE VOLTAGE PROFILE-SMALL SIGNAL DIODE 28
FIGURE 25	FAILURE VOLTAGE PROFILE-RECTIFIER 28
FIGURE 26	FAILURE VOLTAGE PROFILE-ZENER 29
FIGURE 27	FAILURE VOLTAGE PROFILE-MICROWAVE DIODE 29
FIGURE 28	FAILURE VOLTAGE PROFILE-JUNCTION FET 30
FIGURE 29	FAILURE VOLTAGE PROFILE-MOS FET 30
FIGURE 30	FAILURE VOLTAGE PROFILE-LOW POWER TRANSISTOR 31
FIGURE 31	FAILURE VOLTAGE PROFILE-HIGH POWER TRANSISTOR 31
FIGURE 32	FAILURE VOLTAGE PROFILE-MICROWAVE TRANSISTOR 32
FIGURE 33	FAILURE VOLTAGE PROFILE-FIELD EFFECT TRANSISTOR 32
FIGURE 34	FAILURE VOLTAGE PROFILE-THYRISTOR 33
FIGURE 35	FAILURE VOLTAGE PROFILE-OPTOELECTRONIC DEVICE 33

SECTION 1.0

INTRODUCTION

1.0 INTRODUCTION

This databook makes available ESD susceptibility test data that the RAC has collected from a variety of sources over the past few years on integrated circuits, discrete semiconductors and resistors.

The introductory material of this publication is not intended to provide a tutorial on ESD testing or the physics of ESD failures, but rather to provide enough information to allow the user of this document to effectively interpret the presented data. This information will also give the user some insight into the usefulness and limitations of the data.

1.1 BACKGROUND

When VZAP-1 was published in 1983, ESD was a relatively immature field with a serious lack of standardization, especially in the area of ESD susceptibility testing. Much of the VZAP-1 data was taken with non-standard ESD simulator circuits that deviated from the use of a 100 pF, 1500 ohm discharge model. Additionally, it was discovered subsequent to VZAP-1 that many of these simulators, either commercially available or built in-house, have low degrees of repeatability, due to many uncontrolled variables. Although many of the reasons for this nonrepeatability have been studied, understood, and corrected, there potentially still exists sources for large degrees of variation in the test results. A discussion of typical variability that exist in test results is given in Section 1.5

VZAP-2 is intended to be an update to VZAP-1, and presents more data of higher quality. These improvements are possible because much has been learned in the field of electrostatic discharge since VZAP-1 was issued.

1.2 USE OF THIS DATA

MIL-STD-1686A covers the requirements for the establishment and implementation of an ESD control program, including identification of ESD Sensitive (ESDS) parts, assemblies, and equipments. Any organization that designs, tests, inspects, services, manufacturers, processes, assembles, installs, packages, labels, or otherwise handles electronic parts, assemblies, and equipment susceptible to ESD damage should consider implementation of an ESD control program.

The first consideration in establishing an ESD control program in a specific application is the identification of the susceptibility levels of the specific parts being used. This is true whether the program is being implemented as a result of MIL-STD-1686A or not. Based on this information, an effective program can then be designed and implemented without expensive overkill.

MIL-STD-1686A, Paragraph 5.2 states, "The contractor shall identify each ESD Sensitive (ESDS) part, assembly, and equipment applicable to the contract as Class 1 or 2." In some cases Class 3 parts must also be identified. Paragraph 5.2.1.1 further states "ESD sensitivity classification for parts shall be determined as follows:

- (a) ESD sensitivity as specified in the applicable part specification, or
- (b) ESD sensitivity in accordance with Appendix A test data contained in the Reliability Analysis Center (RAC) ESD Sensitive Items List (ESDSIL), or
- (c) Classified in accordance with Appendix B, or,
- (d) When specified, or at the option of the contractor, determine sensitivity by test (See Appendix A). ESD sensitivity test data reporting shall be in accordance with the data ordering document included in the contract or order (See 6.2)."

The data contained in this databook is essentially a compilation of ESD test data taken from a wide variety of sources. The ESDSIL database referred to in item (b) above is entitled the "Electrostatic Discharge Sensitive Items List." The intent of the ESDSIL database is to be a central repository of data taken as a result of the requirements of MIL-STD-1686A and Data Item Description (DID-RELI-80670). The classification test procedure of MIL-STD-1686A, Appendix A, requires the use of the test circuit of MIL-STD-883, Method 3015. At the time MIL-STD-1686A was issued the MIL-STD-883 test method in effect was Method 3015.6. Since there is no data in this publication which resulted from testing as required by Method 3015.6 or later, the data contained herein does not fulfill the requirements of (b) above.

However, the data in this publication is more desirable than the use of (c) above which generically classifies components based on part type. Since 3015.6 was the first MIL-STD-883 ESD test method to ensure reasonable confidence in test waveform characteristics, it is the most desirable test data available. The data types, in order of preference, can be summarized as follows:

- 1) MIL-STD-883, Method 3015.6 or later
- 2) MIL-STD-883, Method 3015.5 or earlier, or other 100pF, 1500 ohm Human Body Model (HBM) tests, such as DOD-STD-1686
- 3) Non 100pF, 1500 ohm HBM tests converted to an ESD susceptibility level consistent with the 100 pF, 1500 ohm model
- 4) Electromagnetic Pulse (EMP) data converted to an ESD susceptibility level.

The data contained in this document are from items 2, 3 and 4. This is also the order of preference which was used in determining the ESD classification of each part listed.

A more detailed description of the test method used for each data entry is given in the remarks field of Section 3 and also in Section 5 (Volume II) of this document.

Before the updates of DOD-STD-1686 to MIL-STD-1686A and MIL-STD-883 Method 3015.5 to 3015.6, there were inconsistencies between DOD-STD-1686 and the MIL-STD-883 method of reporting ESD test results. Specifically, the voltage susceptibility ranges were different, making it impossible to cross-correlate test data. Both MIL-STD-1686A and MIL-STD-883, Method 3015.6 have been coordinated, thereby making data taken from either useable for either purpose. In fact MIL-STD-1686A invokes the procedure of MIL-STD-883 Method 3015.6. The classification ranges in these documents are as follows:

Class 1	0-1999
Class 2	2000-3999
Class 3	4000-15999

This is the classification scheme that is used in this publication. In addition to these, RAC has defined Class N to mean devices susceptible to levels above 15999 volts.

Since much of the data in this publication was obtained from tests performed not in accordance with MIL-STD-1686A or MIL-STD-883, classification in accordance with these standards becomes difficult. For example, if testing was performed that yielded devices passing a test at 1000 volts but failing the test at 3000, although it is known that the susceptibility level is 1000-3000 volts, the MIL-STD-1686A classification cannot be precisely determined. In this example it is not known whether the device is Class 1 or 2. The classification criteria used in this publication was to use the lowest failure voltage or the highest voltage at which the device passed if

no failure data existed. For example, if a device was observed to fail when tested at 2000 volts only, it was classified as Class 1 since the actual threshold voltage is between 1 and 2000 volts.

As stated previously, all data present in this document was not taken from specific test methods, such as method 3015 of MIL-STD-883 but rather from a variety of test methods. Contained in this document are the results of tests done in accordance with MIL-STD-883, test method 3015; tests similar to MIL-STD-883 Method 3015 but not strictly in accordance with it; tests using nonstandard simulation models and methods; and EMP data that was converted to reflect ESD susceptibility levels. The EMP data was only used for classification purposes in the cases in which there was no other empirical ESD susceptibility data. The methodology used to convert EMP data to ESD susceptibility levels is given in Section 1.5.

In future revisions to this publication, it will be interesting to note the differences in ESD susceptibility data between Method 3015.6 and earlier versions in which the waveform was not tightly controlled. However, in general data taken from circuits in which the high frequency (i.e. > 100 MHz) performance has not been characterized will lower failure thresholds. This potential exists due to the fact that there can exist high frequency, high amplitude oscillations in some circuits which yield higher stressing amplitudes than that of the ideal RC discharge waveform.

Additionally, there is a limited amount of Charged Device Model (CDM) test results. Even though CDM tests are not yet incorporated into the ESD testing standards, there has been some data included which were taken using this model. Although the device classification schemes are only applicable for the HBM, the CDM data that was available is included for completeness, considering that conventional classifications with CDM data cannot be done.

Individuals or firms testing devices for ESD susceptibility are encouraged to submit the resulting data to the Reliability Analysis Center for inclusion into the database. If desired, the source of data will be held proprietary by RAC. This data does not need to be taken in accordance with the MIL-STD-883 test method, but can be any empirical ESD susceptibility data. A recommended format for this data is given in Appendix B (Volume II). Also given in Appendix B, for information purposes only, is the Data Item Description (DID) DI-RELI-80670 called out in MIL-STD-1686A for submission of ESD sensitivity data.

1.3 INTERPRETATION OF DATA

The data contained herein is intended to present the results of empirical tests performed. Ideally, in addition to voltage susceptibility levels, one would like to know specific failure mechanisms that caused the device to fail. While manufacturers typically know the manner in which their part will fail when exposed to an ESD transient, this data is not normally available to outside organizations. Therefore, the specific failure mechanisms are not known. What is usually known is the failure mode (that is, the measurable effect of damage), since in any ESD test there must be a means of detecting failure. Examples of typical failure modes (or failure criteria) included excessive input leakage, input stuck high, functional failure, etc.

The failure criterion used in establishing an ESD failure is critical to the outcome of the testing. This may be illustrated by the use of two examples. In the first example, let us assume that the failure criterion for a bipolar device is defined as a certain percentage change in leakage current. This may be a difficult failure criterion to implement, because the relationship of leakage current versus stress voltage itself is not well-defined. In the second example, let us assume that the leakage current specification limits are used as the failure criterion for the same parts. The device which we are testing is relatively tolerant to ESD and remains within the specification limits when stressed with a pulse well below the damage threshold. Nevertheless, there is a measurable change in the leakage current, i.e., the device has been degraded; however, it does not exceed the specification until it is subsequently pulsed with a much higher energy pulse. Since we know that some degradation has occurred, we can measure the degradation, but, because of the failure criterion, the device is not considered susceptible to ESD damage at the lower level. For this reason, the criterion used to detect device failure must also be selected in accordance with the device operating characteristics and the manner in which the device is designed into a circuit; that is, if a certain circuit configuration can tolerate a parameter shift or even an out-of-specification condition of this component. Since it is impractical to require unique failure criteria based on the manner in which the part is used in the circuit, MIL-STD-883, Method 3015.6 states the devices shall be tested for failure following stressing by performing room temperature DC parametric and functional tests. Performing both parametric and functional tests should identify any degradation or failure of the device.

It is also recognized that failure modes and mechanisms are highly dependent on the simulation circuit used to stress the device. There are various circuits being used in industry to simulate different ESD scenarios. The most standard of these is the Human Body Model, in which a charged capacitance is discharged through a resistor to the device under test. This Human Body

Model is the most commonly used simulation model and is specified in MIL-STD-1686A and MIL-STD-883 Method 3015. The resistance and capacitance values specified in these standards are 100 pF and 1500 ohms, respectively. Other values are often used and some data in this publication use these values. The values used are listed in the detailed data (Section 3.0). It should be noted that devices can exhibit different susceptibility characteristics depending on the values used. Since there is a need to classify devices in a consistent manner, the RAC derived a conversion method for data that was taken using a Human Body Model with resistance and capacitance values other than 100 pF, 1500 ohms.

Using semi-empirical methods, the RAC has established the following formula for the conversion:

$$V_1 = V_2 (3.87) \sqrt{\frac{C_2}{R_2}}$$

where:

- V_1 = standard human body model damage threshold
- R_2 = nonstandard value of resistance used (in ohms)
- C_2 = nonstandard value of capacitance used (in pF)
- V_2 = measured damage threshold using C_2 and R_2

The derivation of this equation may be found in Appendix A.

This method is only used so that a classification in accordance with the susceptibility levels of MIL-STD-1686A can be made. The data in Section 3.0 presents both the classification of each part and the data as it was obtained, i.e., the failure voltages of the actual model used during testing.

Other ESD simulation models sometimes used are the charged device model and the machine model. The charged device model simulates the situation in which a device, after being charged, contacts a conductive object, thereby causing a high amplitude, short duration discharge pulse. The machine model simulates a situation in which a device is contacted with a charged capacitance through a very low resistance. This model is intended to simulate a conductive object, like parts of a machine, that contact the device.

The purpose of this book is not to provide background on the physics of ESD failures, as this has been done extensively in the literature, but rather to present the data collected by RAC and give the reader enough information so that the limitations of the data are fully understood. If

further information is required, DOD-HDBK-263, "Electrostatic Discharge Control Handbook for the Protection of Electrical and Electronic Parts, Assemblies, and Equipment (Excluding Electrically Initiated Explosive Devices)" and the proceedings of the Annual EOS/ESD Symposium provide much information on all aspects of ESD.

1.4 CONVERSION OF EMP OVERSTRESS TEST DATA TO THE ESD HUMAN BODY MODEL

A vast amount of electrical overstress data has been compiled from Electromagnetic Pulse (EMP) studies. It would be negligent to disregard this potential data source. By knowing certain parameters of a device, a theoretical ESD failure can be calculated using the Wunsch-Bell model (Reference 28) as the starting point. The following equation has been established to convert EMP overstress data to the ESD human body model equivalent:

$$V = \left[\frac{-2V_D + \sqrt{4V_D^2 + 1200 K_1 (7.675 \times 10^{-7})^{-K_2}}}{60} \right] 1530 + V_D$$

where:

- V = ESD threshold voltage
- V_D = measured overstress breakdown voltage
- K_1 = failure constant 1
- K_2 = failure constant 2

The derivation of this equation may be found in Appendix A (Volume II).

To further verify the validity of the calculated ESD levels presented in this book, data was compared for specific devices which had both empirical ESD threshold data and ESD threshold levels calculated from EMP data. The log of the ratio of ESD to EMP failure voltages was plotted such that a given percentage of discrepancy (i.e., if the EMP level was the same percentage higher or lower than the ESD level) would be equidistant from the 0 line. Figure 1 is a histogram illustrating the relationship between the $\log \left(\frac{\text{EMP}}{\text{ESD}} \right)$ and frequency of occurrence. If the datapoints were randomly distributed about the 0 line and the data did not show a shift in distribution against any parameter, it could be concluded that the failure levels obtained from EMP data were a fairly good indication of the actual susceptibility levels of the devices (not taking into account random

variations and noise in the data for any given device). Analysis of this data however, indicated that the $\log \left(\frac{\text{EMP}}{\text{ESD}} \right)$ datapoints were not randomly distributed but rather correlated to the susceptibility level. This indicates that the conversion algorithm is not perfectly accurate.

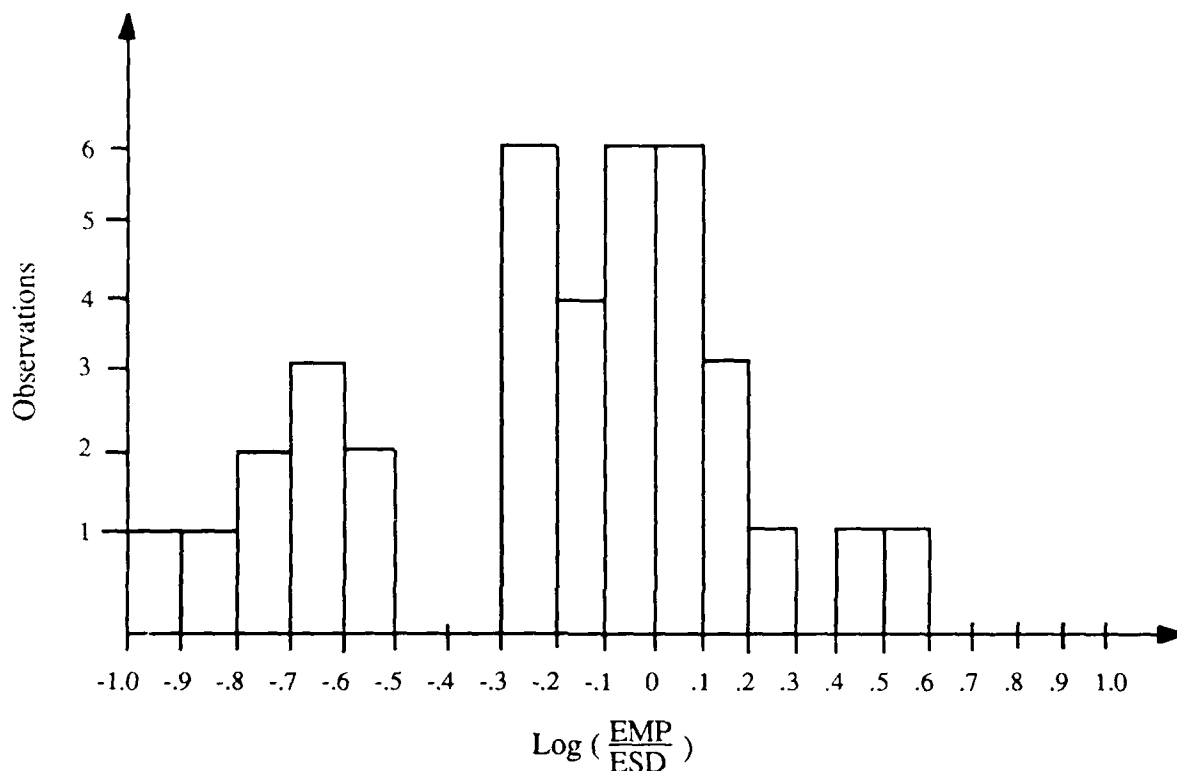


FIGURE 1: EMP VS. ESD DATA

Based on this information it should be emphasized that the ESD susceptibility levels obtained from EMP data are necessarily only approximate values. It can be seen from Figure 1 that the EMP to ESD levels can differ by as much as a factor of 10. There are various sources of error in converting EMP data to ESD data. Two of these error sources are the uncertainty in the damage constants and the uncertainty in the device parameters (bulk resistance and breakdown voltage). These uncertainties can stem from normal lot to lot variations and differences among manufacturers. Additionally, it is known that damage from EMP test pulses may manifest itself as different failure mechanisms than damage from an ESD pulse. This is due to the fact that an ESD pulse may be a shorter duration, higher current pulse relative to an EMP event. These variations can easily cause a factor of 10 difference in the susceptibility levels. For this reason, EMP data is used in this publication for classification purposes only in those cases where ESD data

is not available. The EMP data is identified as such in the remarks field (field no. 18) of the detailed data section.

1.5 VARIABILITY ASSOCIATED WITH CONVENTIONAL TEST METHODS

Since ESD testing began, it has been recognized that there was a certain degree of variability in test results due to the test apparatus itself. These variations were attributed to:

- Arcing of the high voltage switching relay.
- Errors in calibration of the test voltages.
- Leakage of the capacitor.
- Parasitic inductances and capacitances.
- Inconsistencies in the criteria used to detect failure.
- Incomplete characterization of worst case pin combinations.

Conventional ESD simulators probably effectively simulate a real ESD event from a charged person or object, since a real ESD would have many of the parasitic R, L, and C values similar to that of the simulator (Reference 8). The problem is, however, that the discharge waveform produced is uncontrolled and cannot be used to obtain repeatable results.

To illustrate the repeatability of tests using a conventional circuit, Figures 2 and 3 present the data RAC has taken from two different conventional ESD simulators. A sampling of 74LS08 devices were obtained of the same date code, attempting to minimize variations in the device under test population. The most susceptible pin was found by step stressing a small sample of devices on each pin until failure. Failures were detected with a curve tracer indicating a change in reverse breakdown voltage characteristics between the pin under test and the substrate of the device.

Once the most susceptible pin was found, a sampling of 30 devices were step stressed to failure on this pin for each of the two simulators. Voltage step increments of 25 volts were used to maximize the resolution of failure voltage distributions. The intent of the study was to:

- (1) Determine the failure voltage distribution of a typical device stressed with a conventional test apparatus.
- (2) Identify differences in these distributions between two typical simulators.

Another study (Reference 26) with similar objectives yielded even a higher degree of variability. In this study, a sampling of 74F04 and 74F175 devices were tested by three independent test labs. Figures 4 and 5 summarize these results.

These results were taken when ESD testing technology was less mature and testers were being built with little regard for the subtleties involved in making an accurate and repeatable test circuit. Since the data contained in this publication was obtained from a variety of testers, it is apparent that this inherent variability is present in it.

In addition to the inherent variation in test apparatus and devices themselves, there can also exist large variations between manufacturers. This is due to the fact that each manufacturer employs their own unique methodologies and circuitry to protect devices, each with their own protection capability. If the manufacturer was known, it is reported in the detailed data section of this publication.

1.6 SUMMARY AND CONCLUSIONS

This publication presents the most comprehensive compendium of electrostatic discharge susceptibility test data currently available. This data is useful (and mandated by MIL-STD-1686A) for the establishment of ESD control procedures based on the susceptibility of devices being handled, assembled, stored, etc. It is important for the users of this information to understand the limitations of the data contained herein. To accomplish this, previous discussions have addressed the different types of data included in this publication as well as the variation inherent in it.

RAC also strongly encourages any one performing ESD susceptibility tests to submit the results of those tests to RAC for inclusion in the database and dissemination in future editions of this publication. If tests are performed in accordance with MIL-STD-1686A, the results are required to be submitted to RAC as outlined in the Data Item Description DI-RELI-80670 (given in Appendix B, Volume II). Also, given in Appendix B is a format for submitting data if not done in accordance with a specific test method.

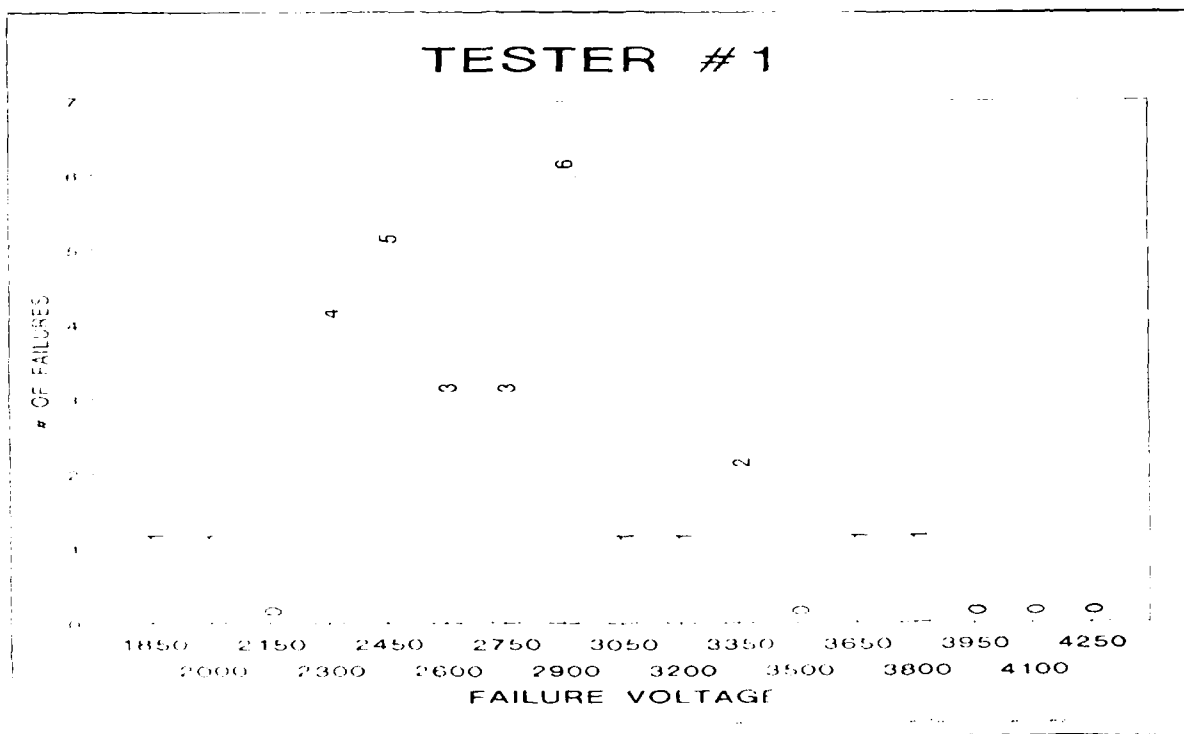


FIGURE 2: FAILURE DISTRIBUTION FOR TESTER #1

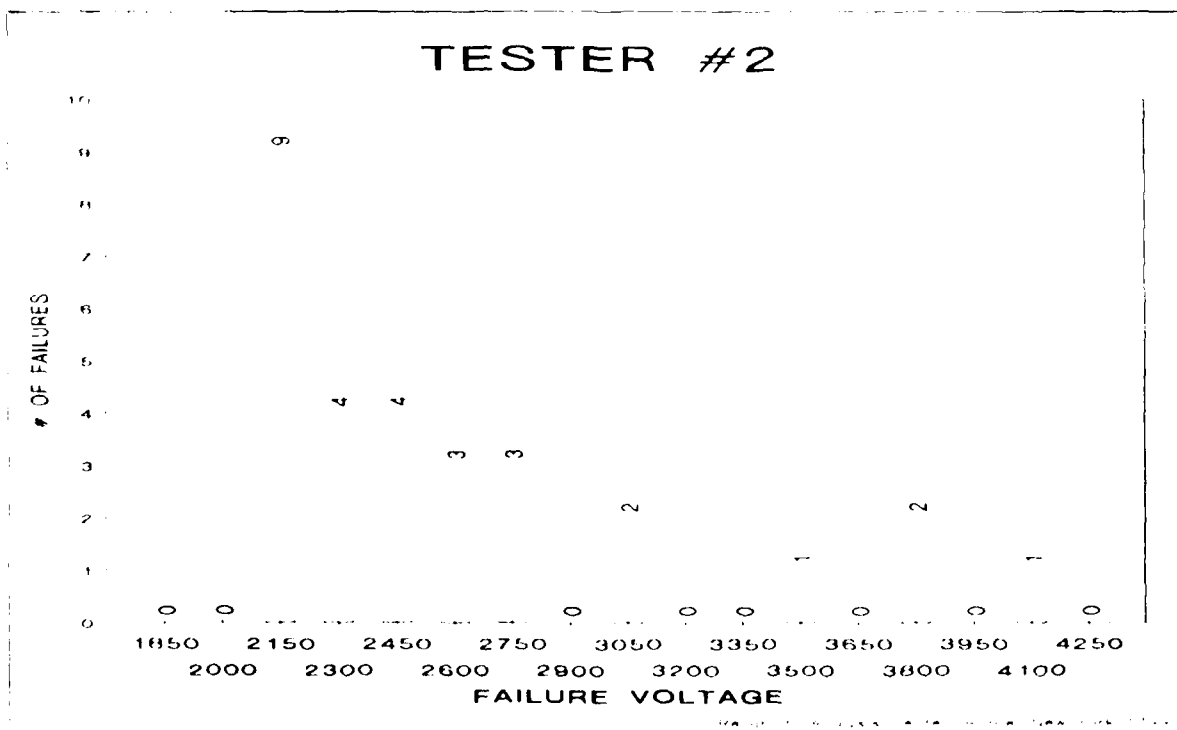


FIGURE 3: FAILURE DISTRIBUTION FOR TESTER #2

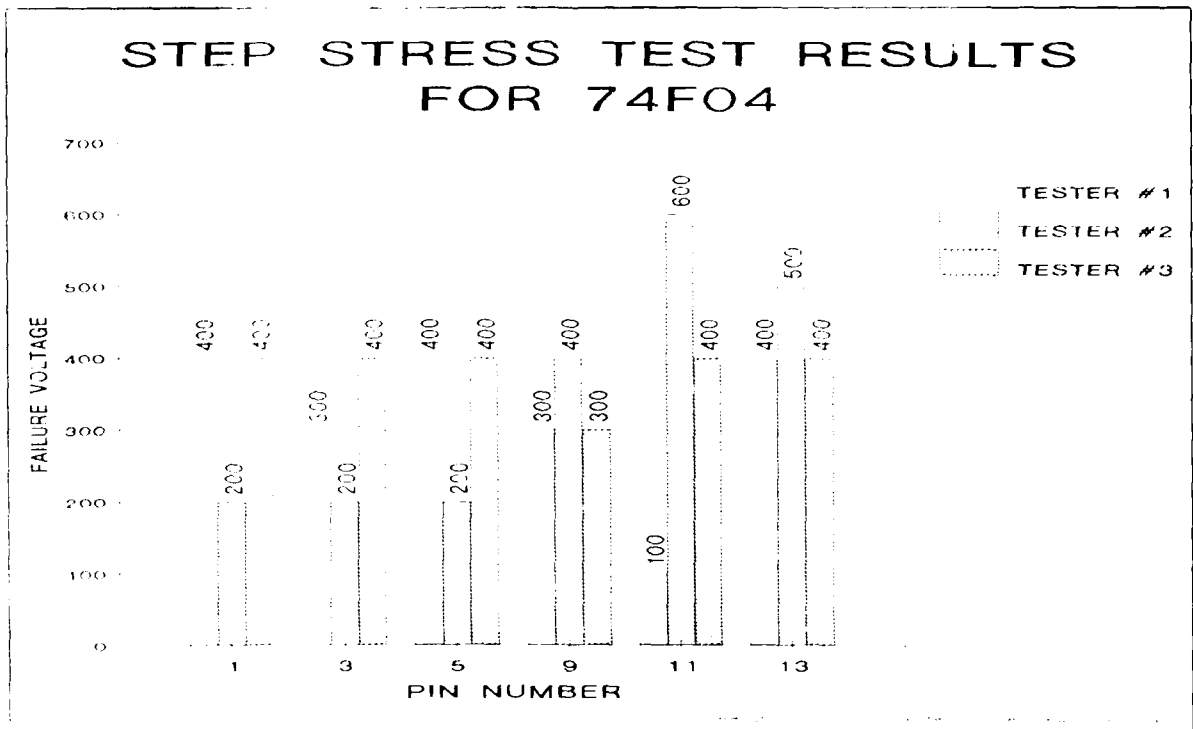


FIGURE 4: STEP-STRESS RESULTS FOR 74F04

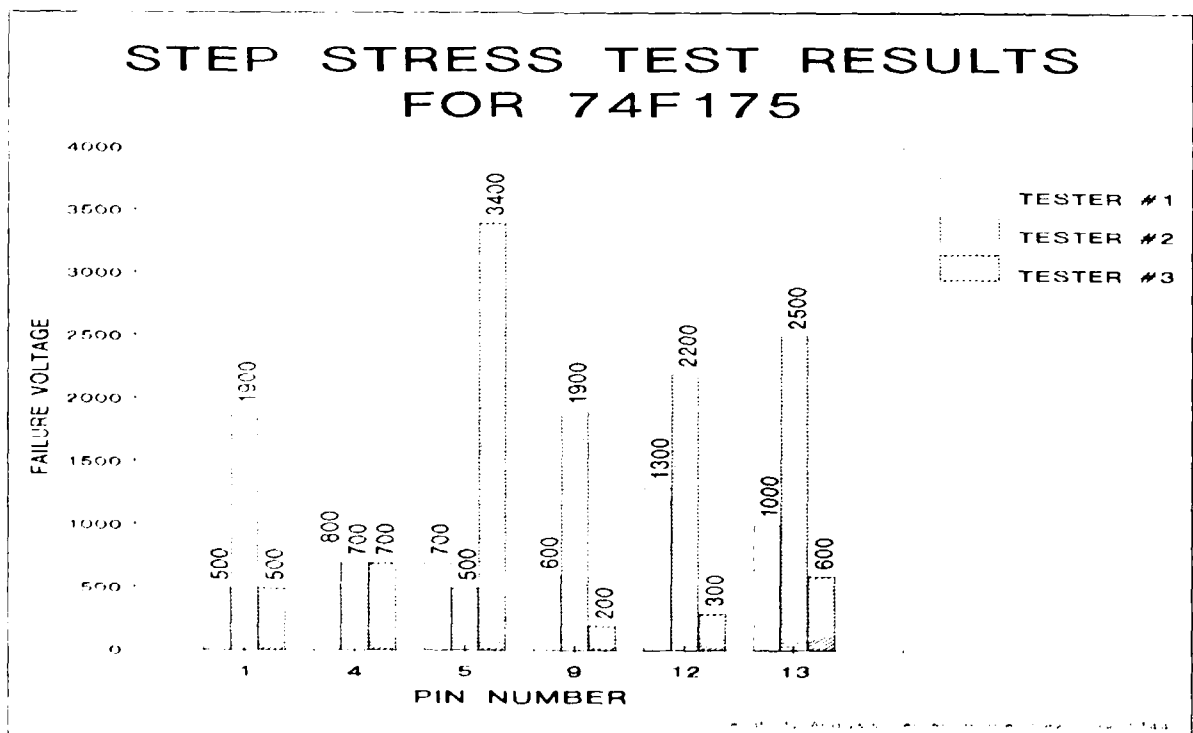


FIGURE 5: STEP-STRESS RESULTS FOR 74F175

SECTION 2.0

FAILURE VOLTAGE PROFILE

2.1 SUSCEPTIBILITIES OF VARIOUS TECHNOLOGIES

The relative susceptibilities of various technologies can be seen from the following histograms (Figure 6 through 35). Cases where there are large peaks in the histogram are indicative of a particular data source or test method. For example, the peaks at 1000-1499 volts for CMOS, 2000-2499 volts for TTL, 1000-1499 volts for STTL, etc., were primarily from data contained in Source Code 030 (Section 5.0). However, when observing the histogram (Figure 19) for failure voltages of all microcircuit technologies combined, a much larger sample size was available and a fairly well-defined curve was obtained.

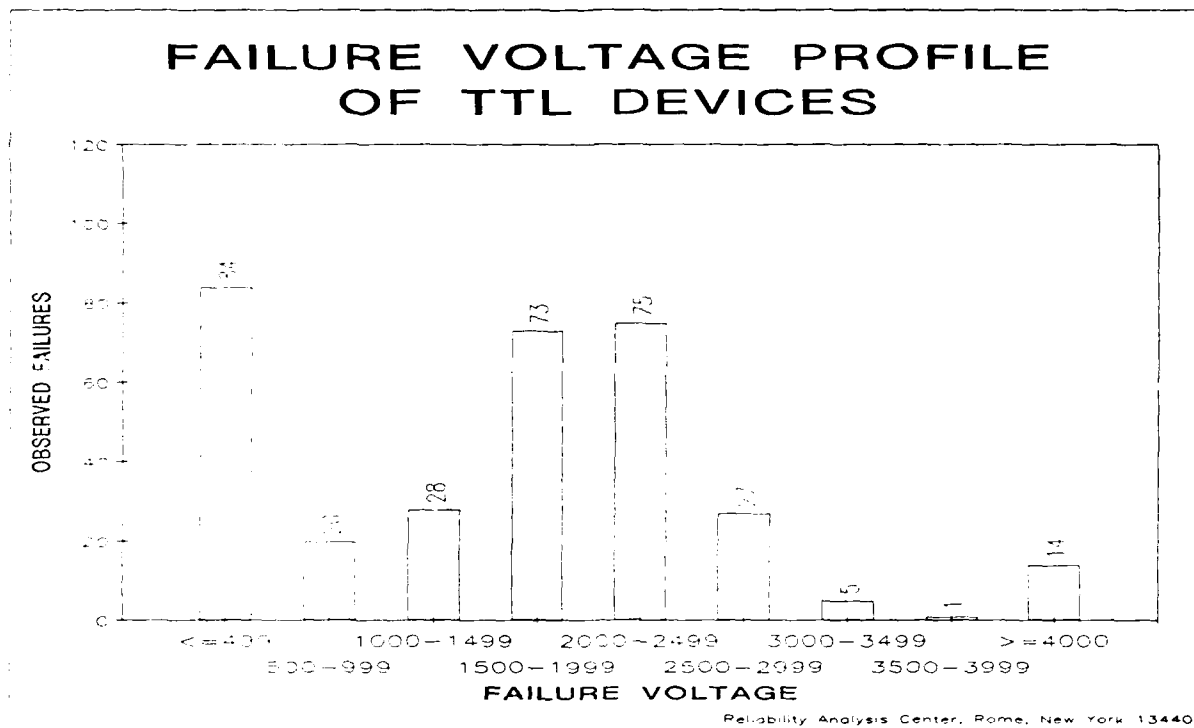


FIGURE 6

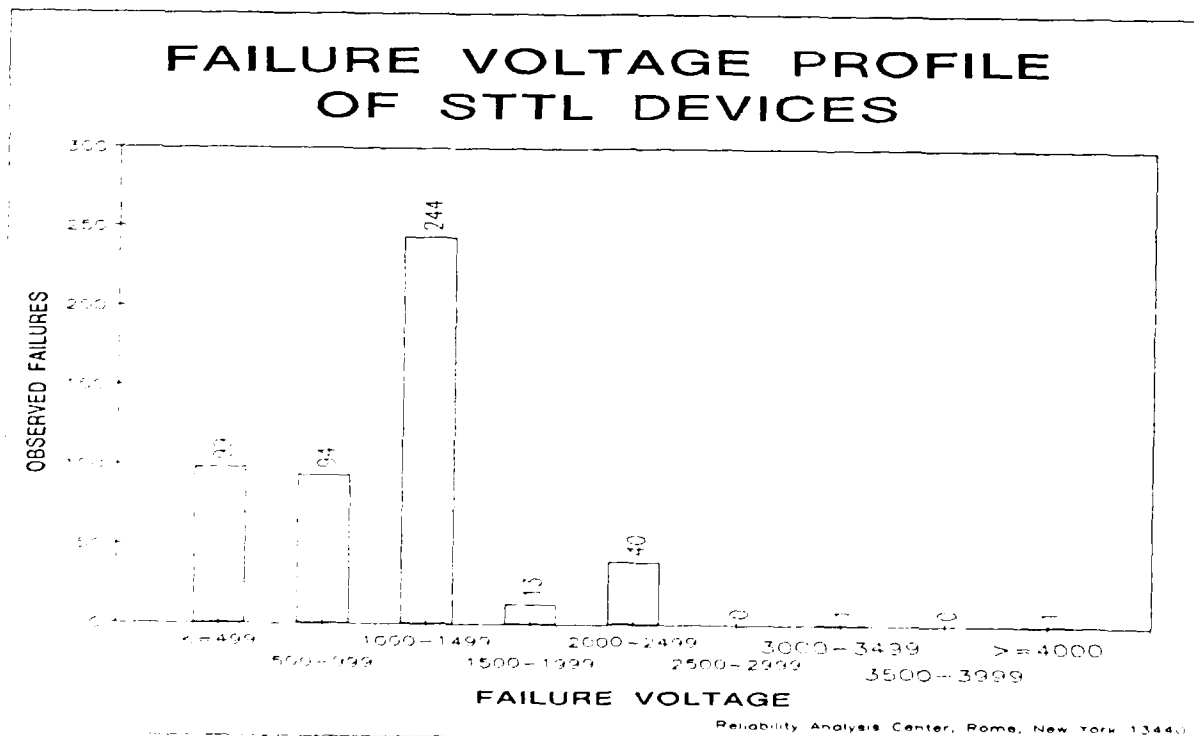


FIGURE 7

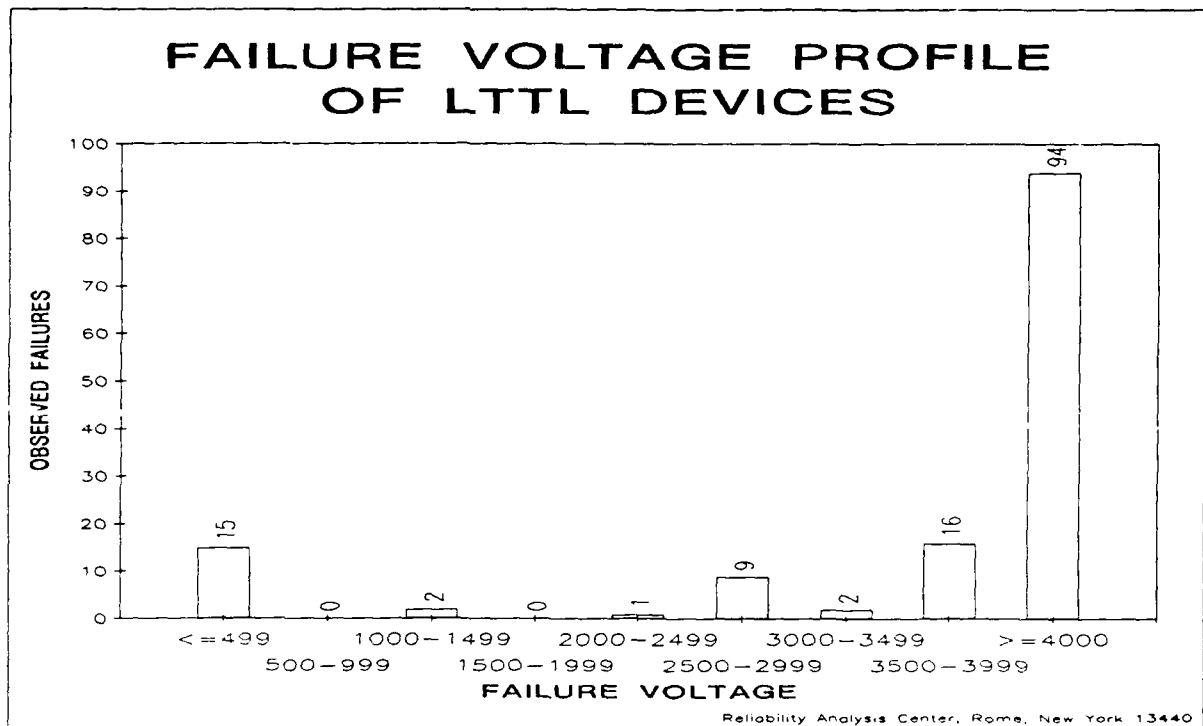


FIGURE 8

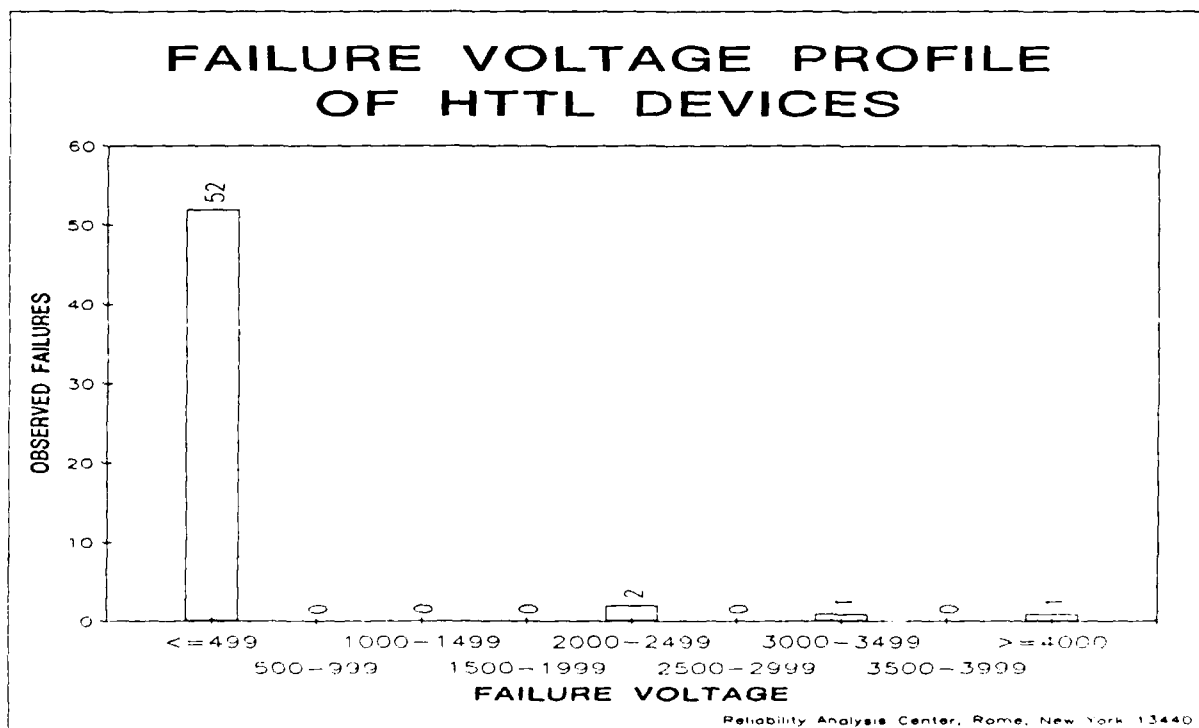


FIGURE 9

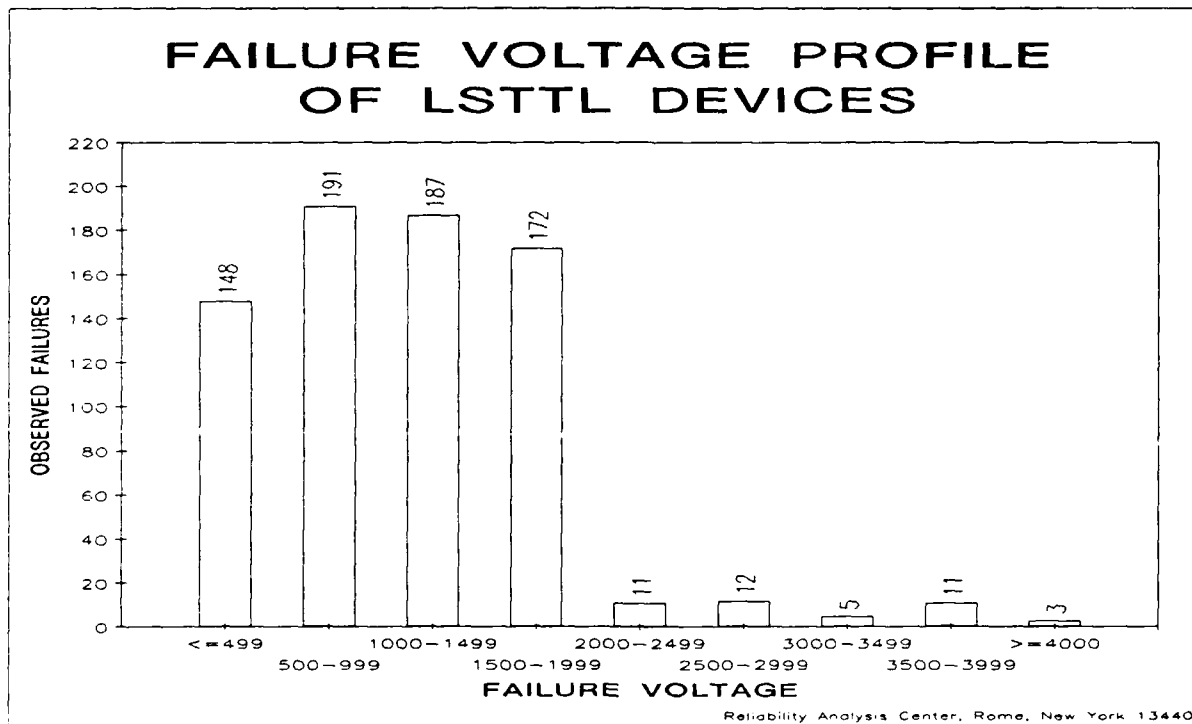


FIGURE 10

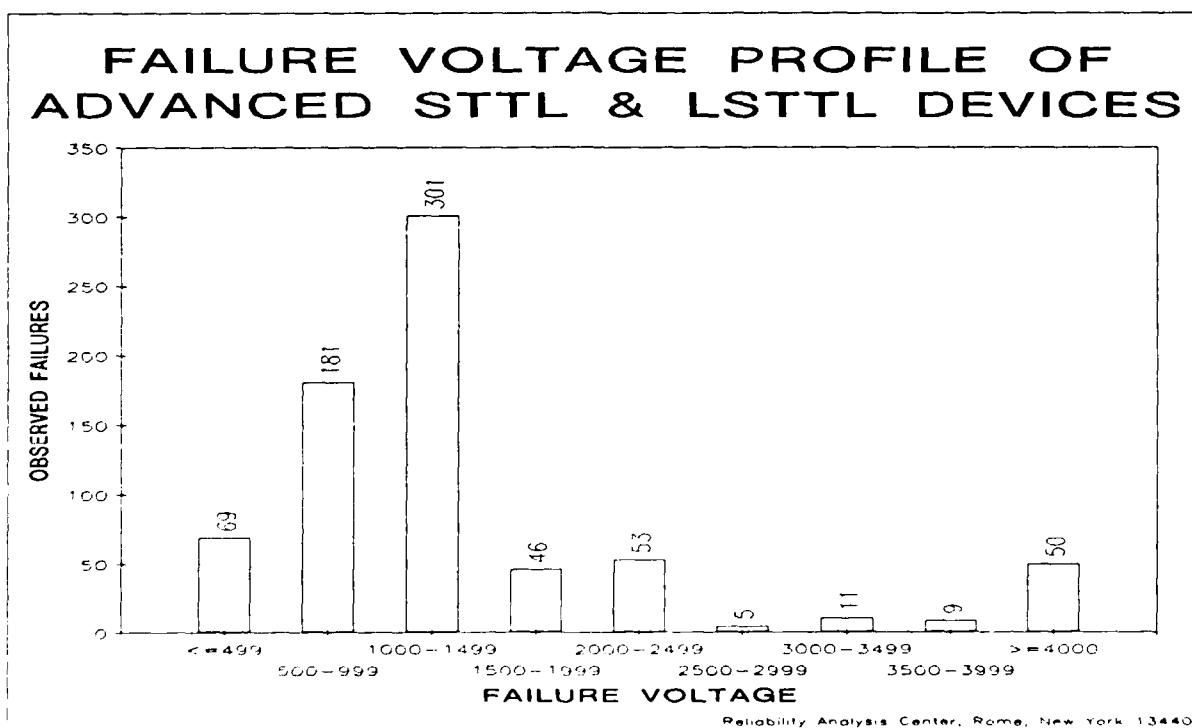


FIGURE 11

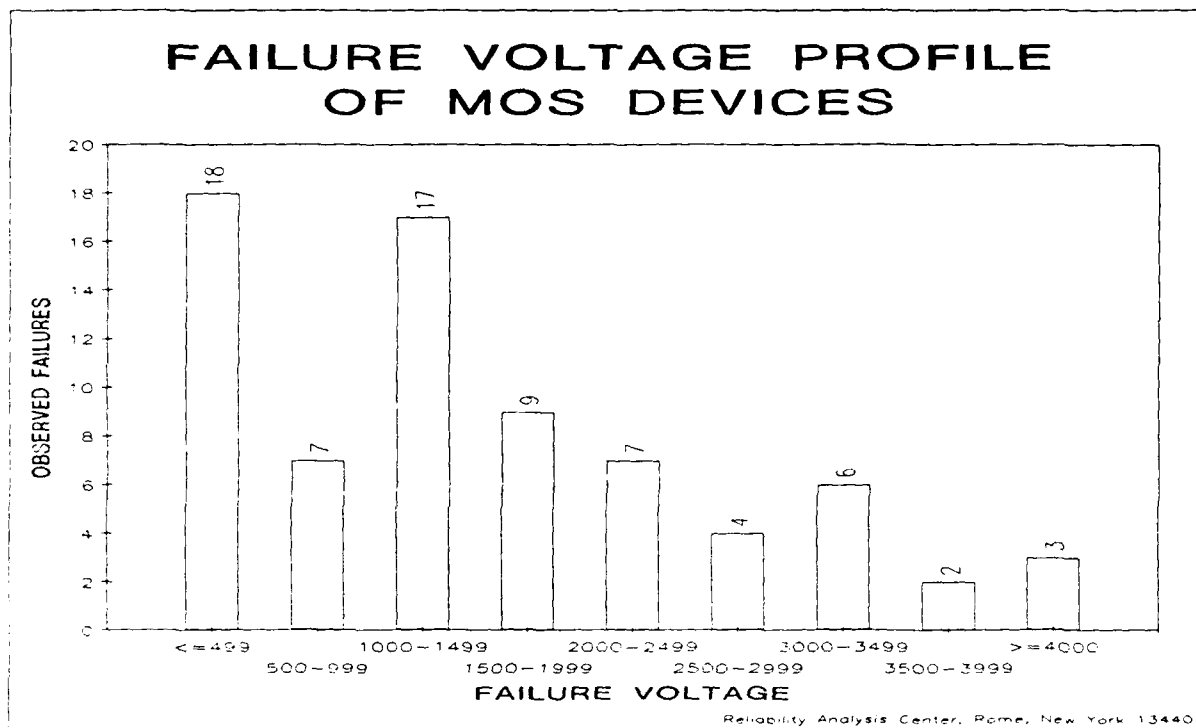


FIGURE 12

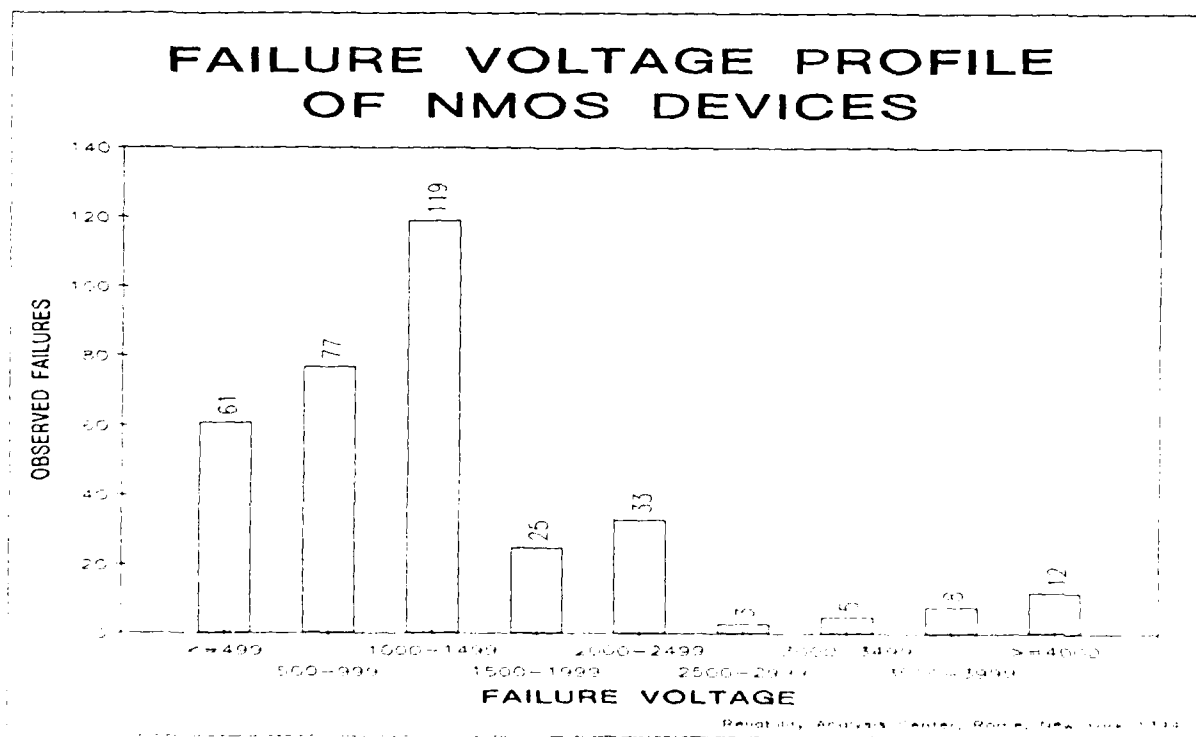


FIGURE 13

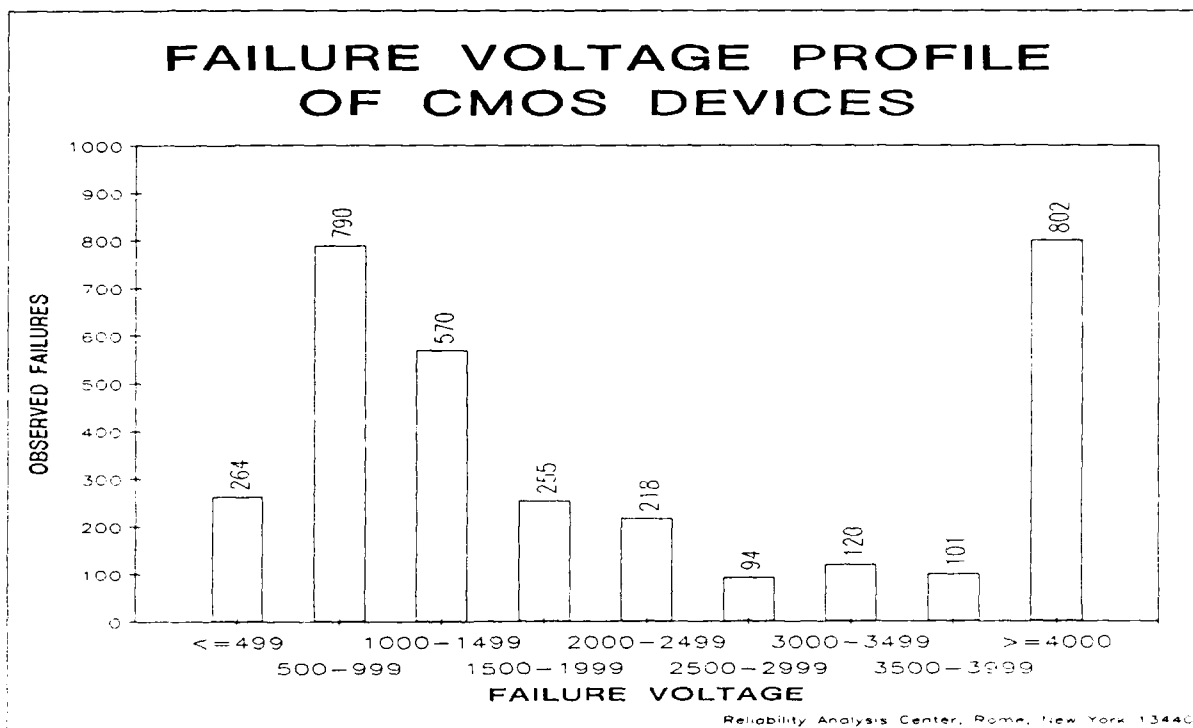


FIGURE 14

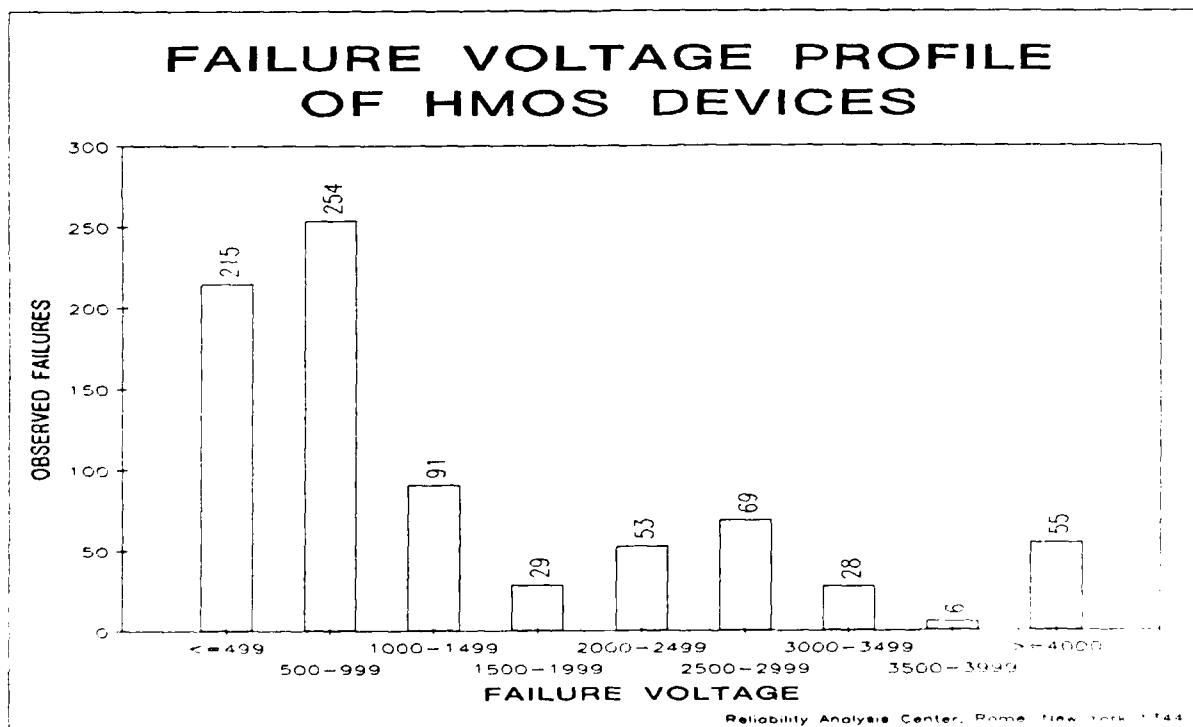


FIGURE 15

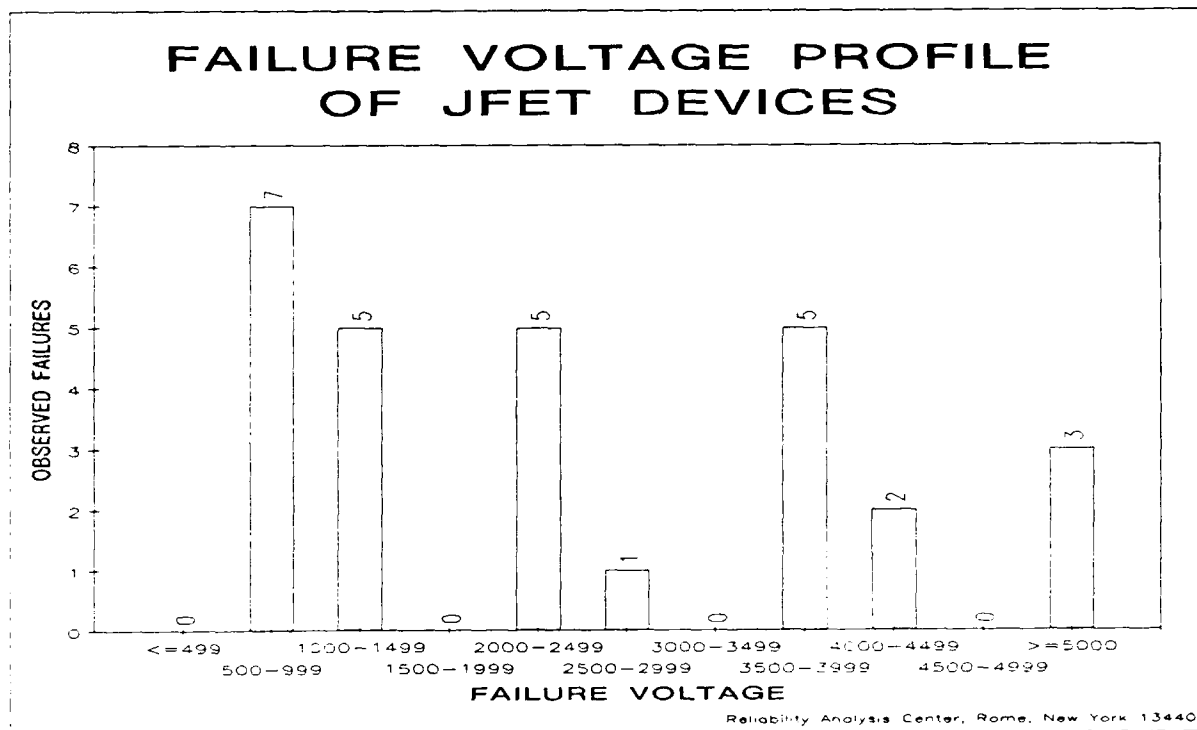


FIGURE 16

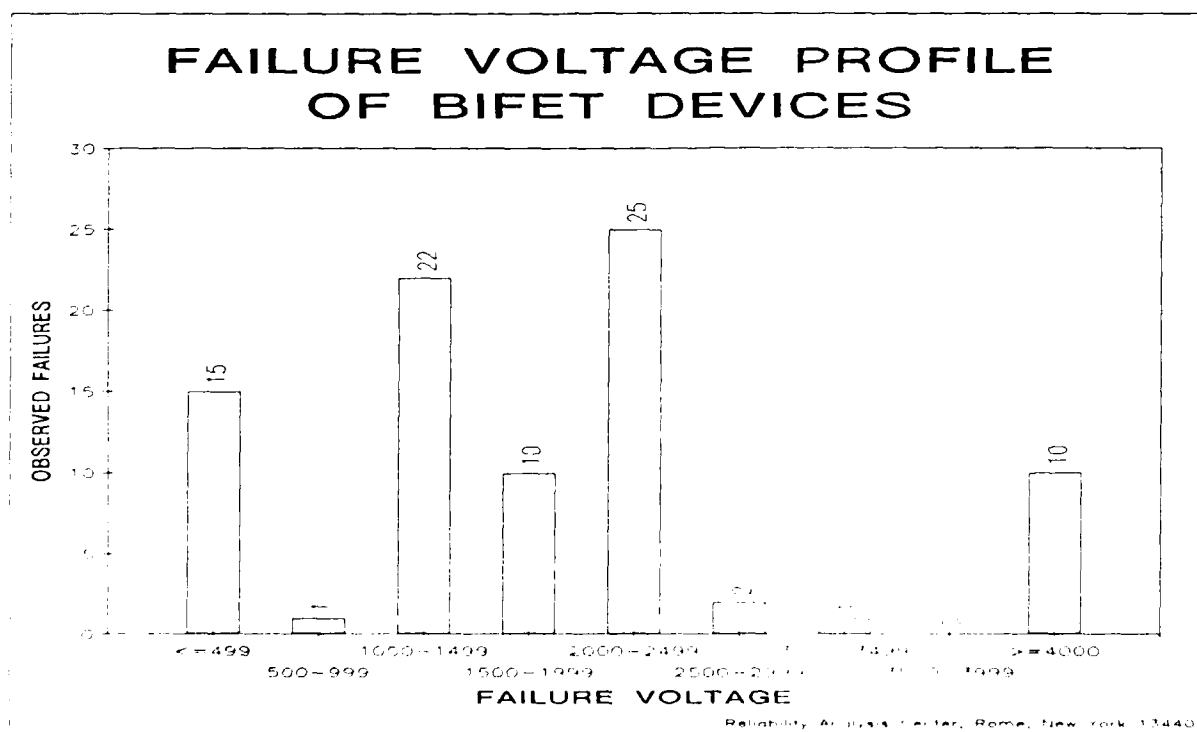


FIGURE 17

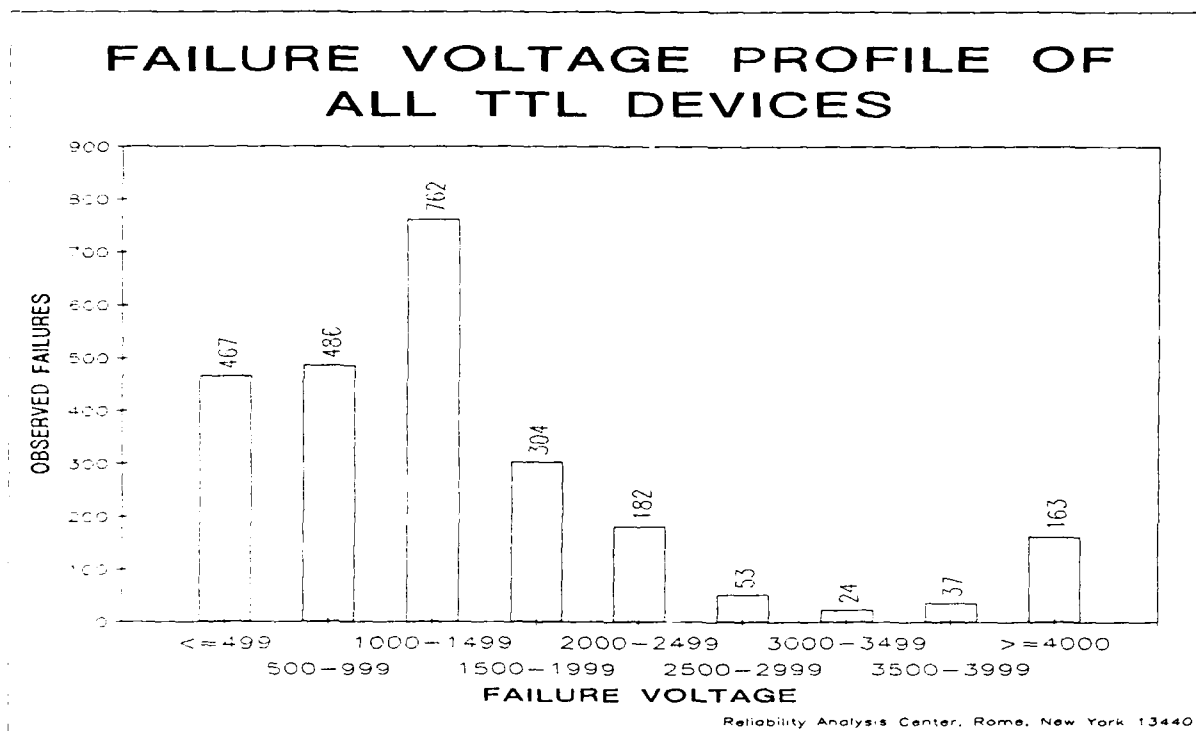


FIGURE 18

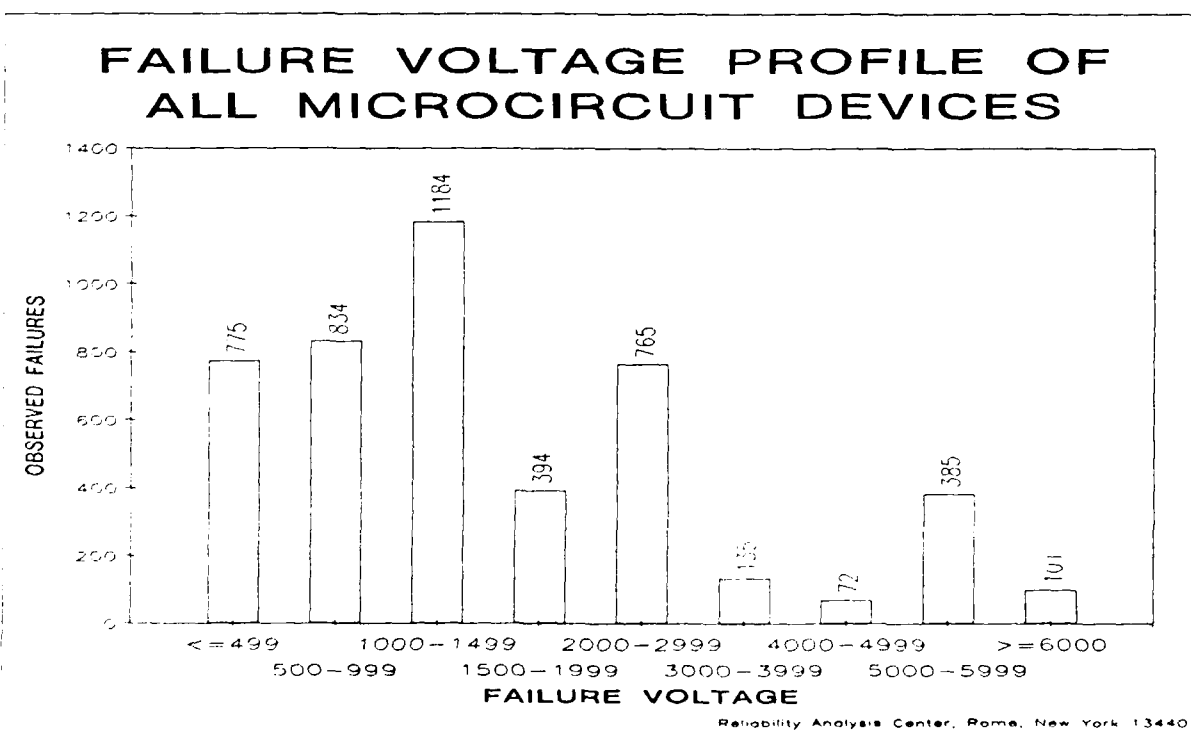


FIGURE 19

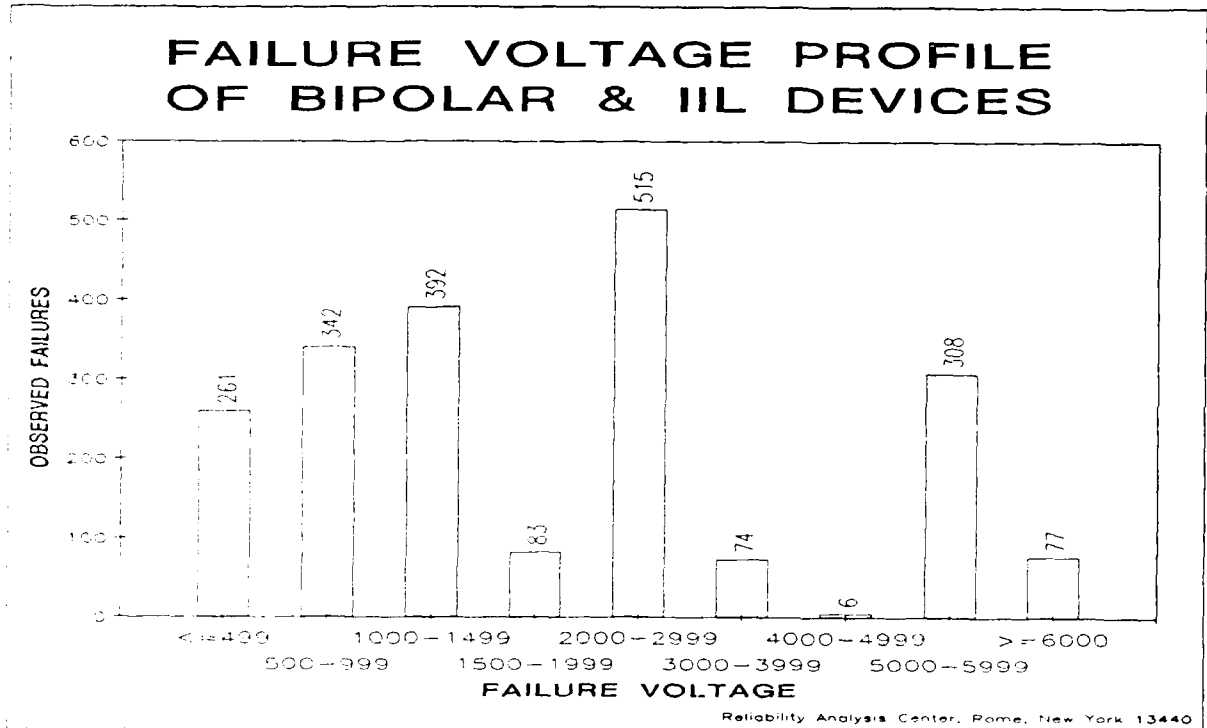


FIGURE 20

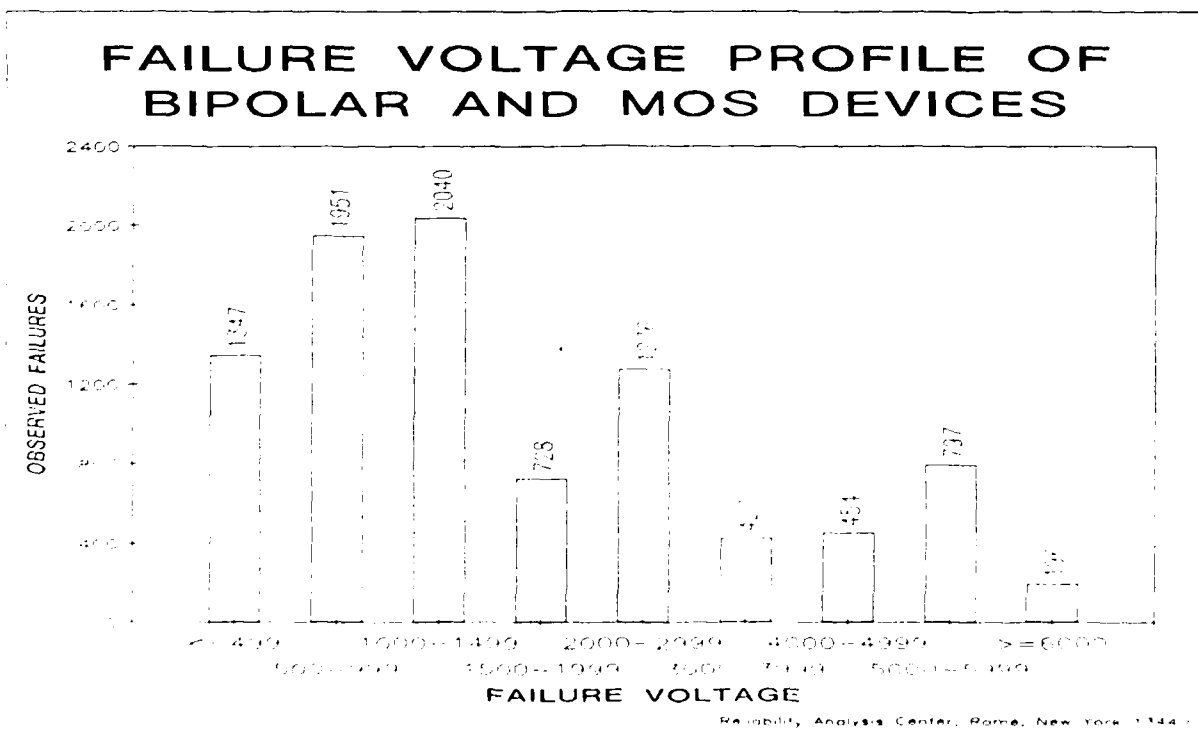


FIGURE 21

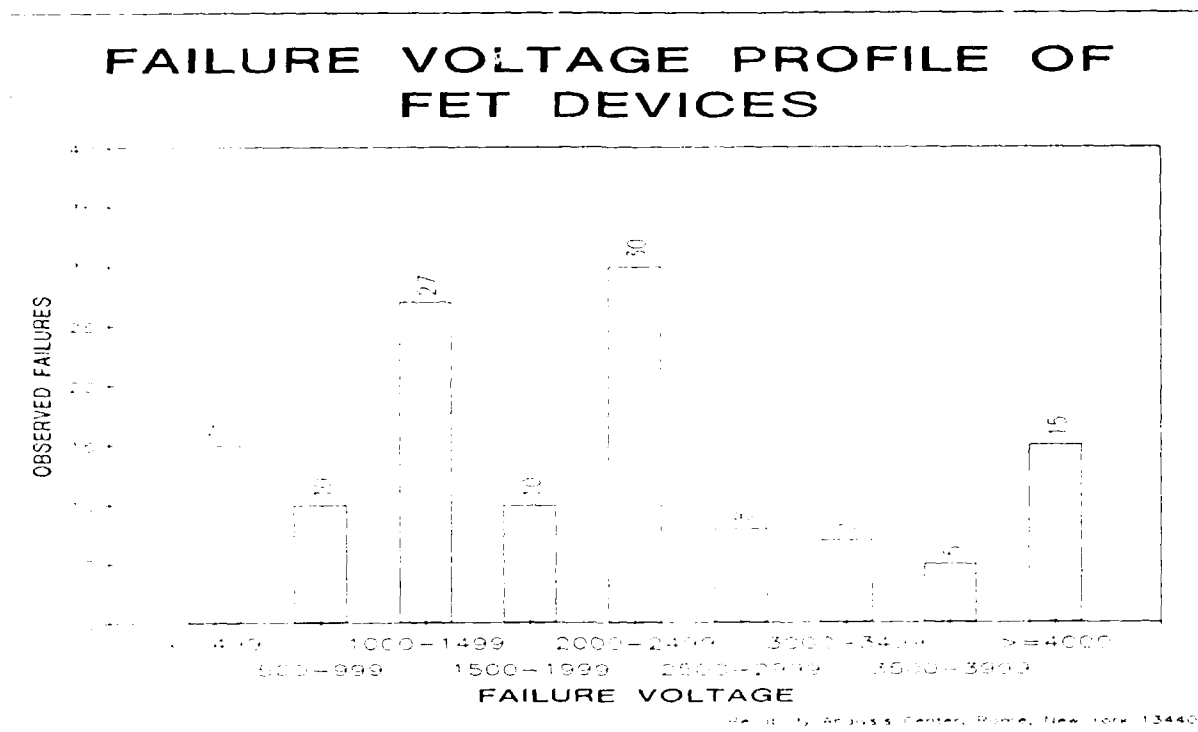


FIGURE 22

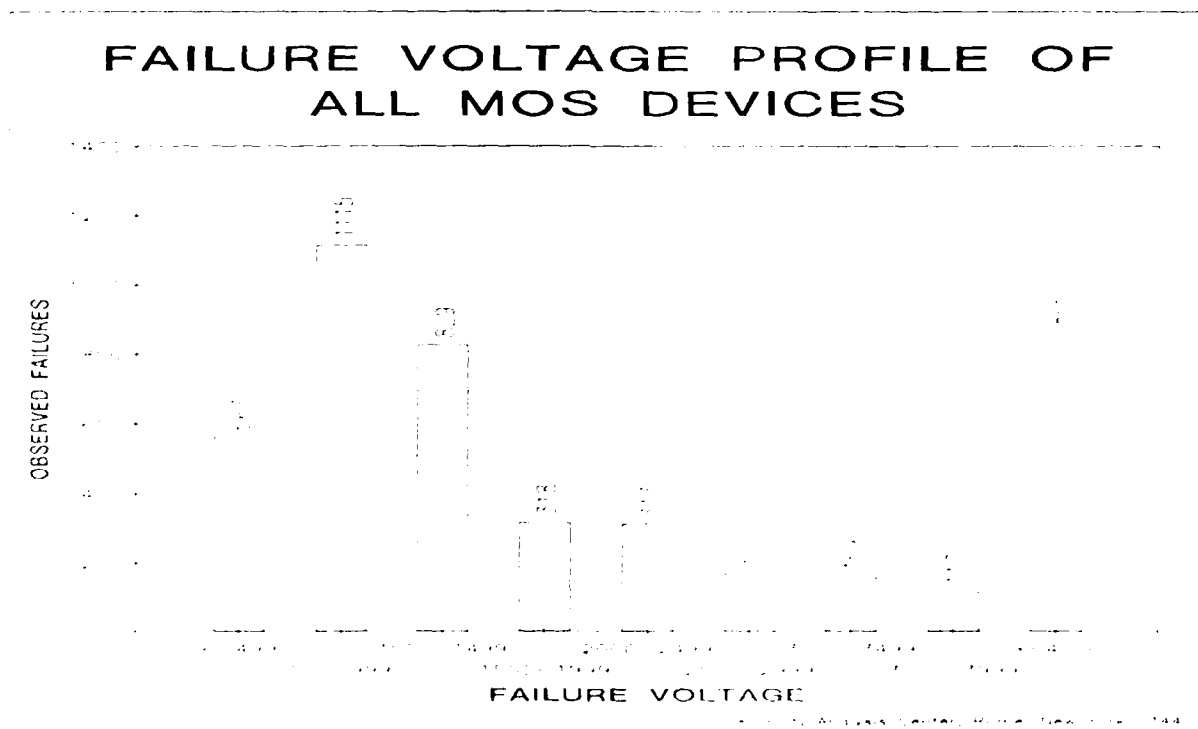


FIGURE 23

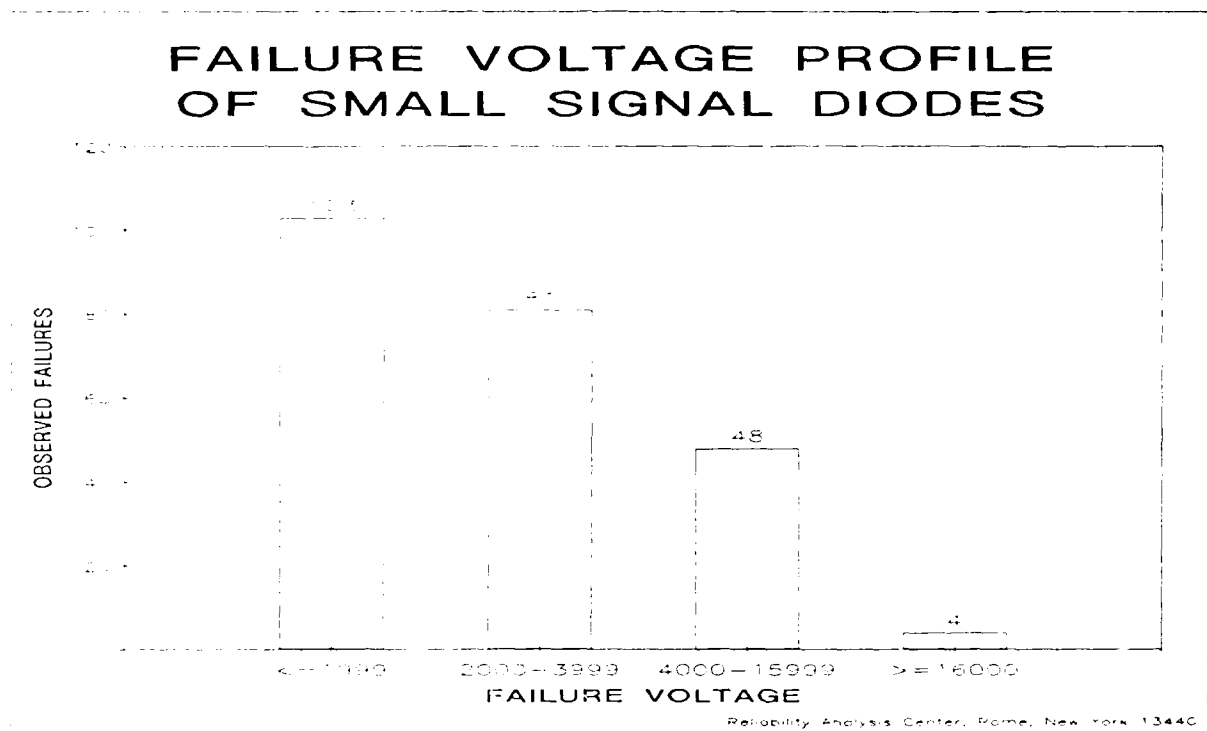


FIGURE 24

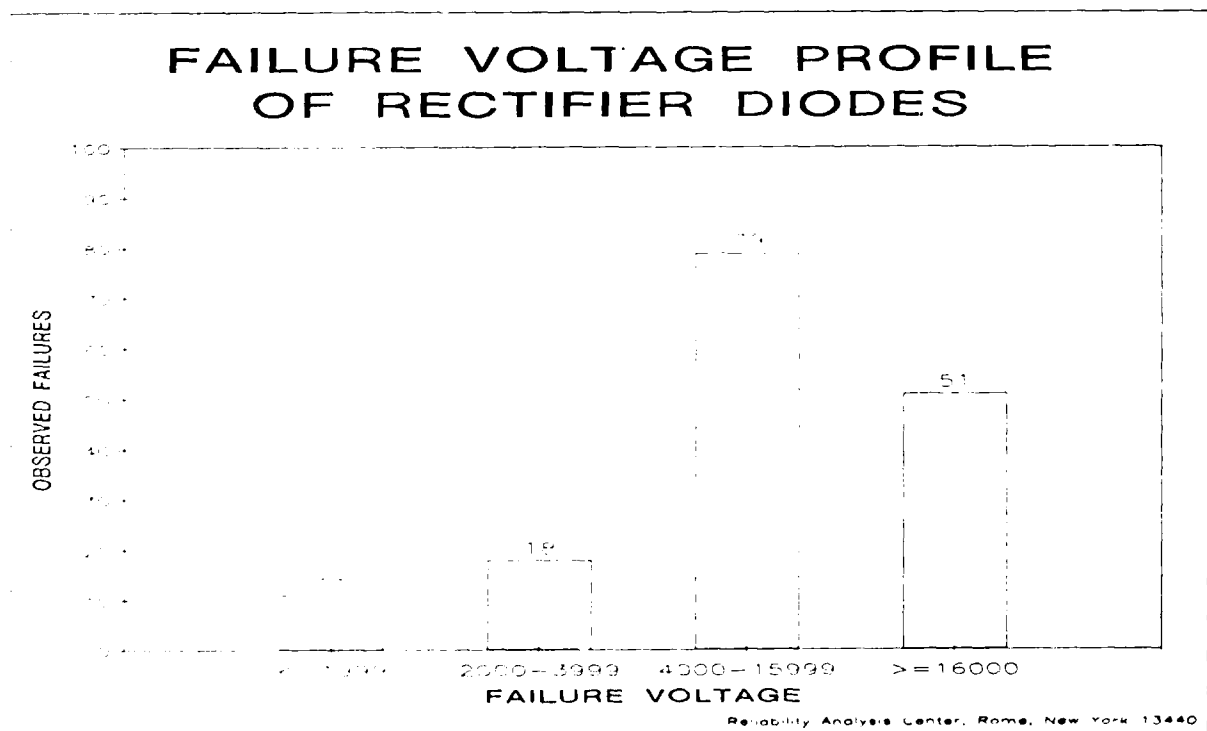


FIGURE 25

FAILURE VOLTAGE PROFILE OF ZENER DIODES

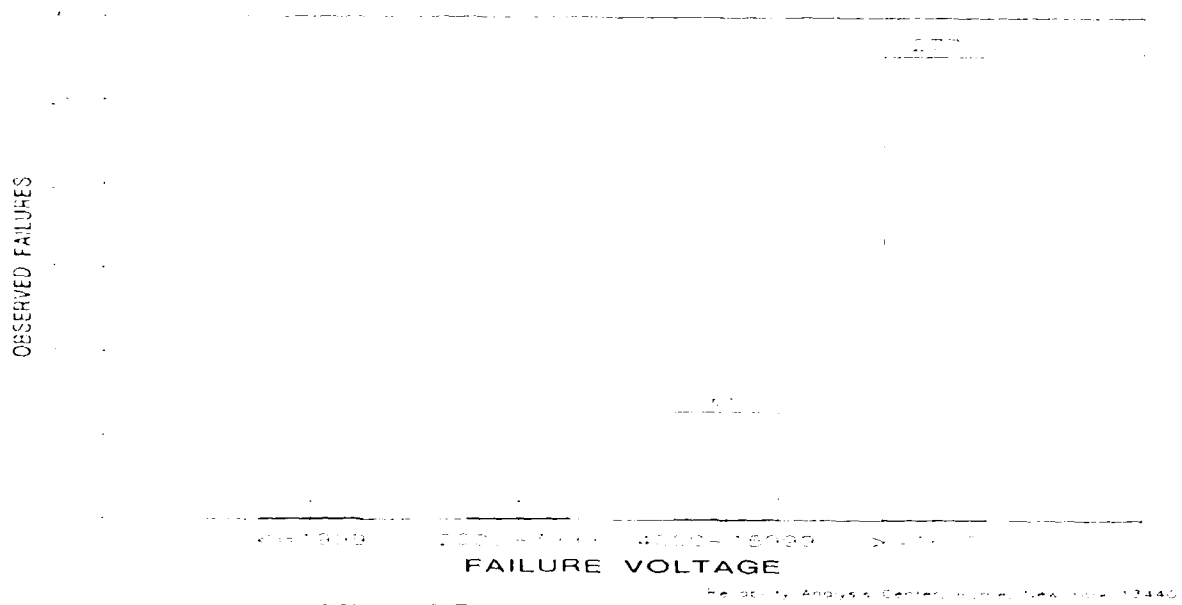


FIGURE 26

FAILURE VOLTAGE PROFILE OF MICROWAVE DIODES

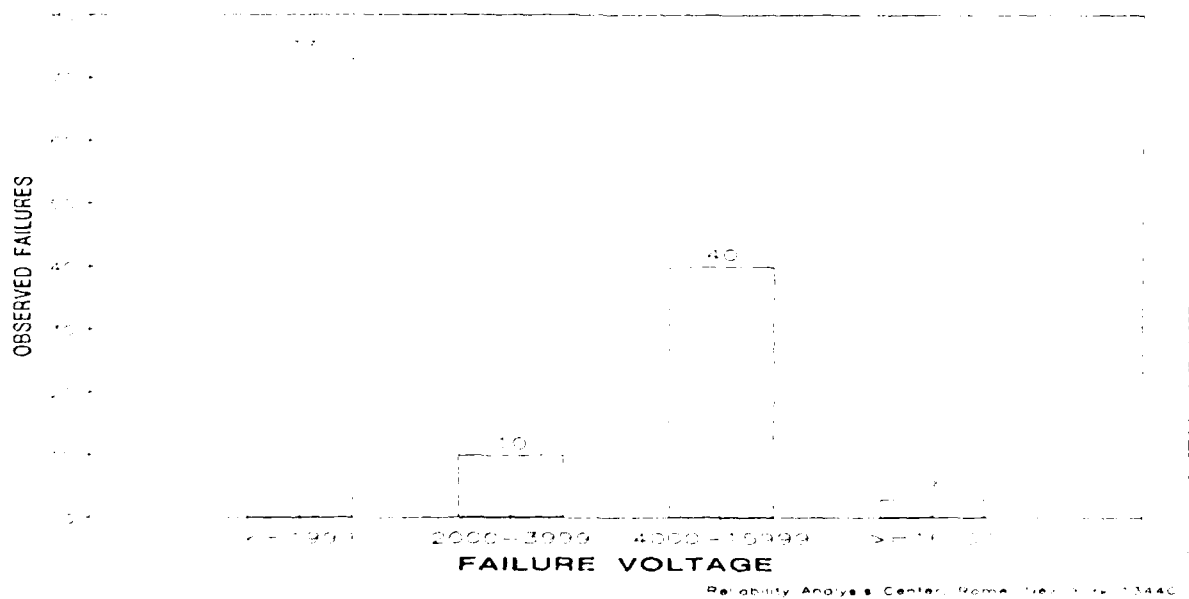


FIGURE 27

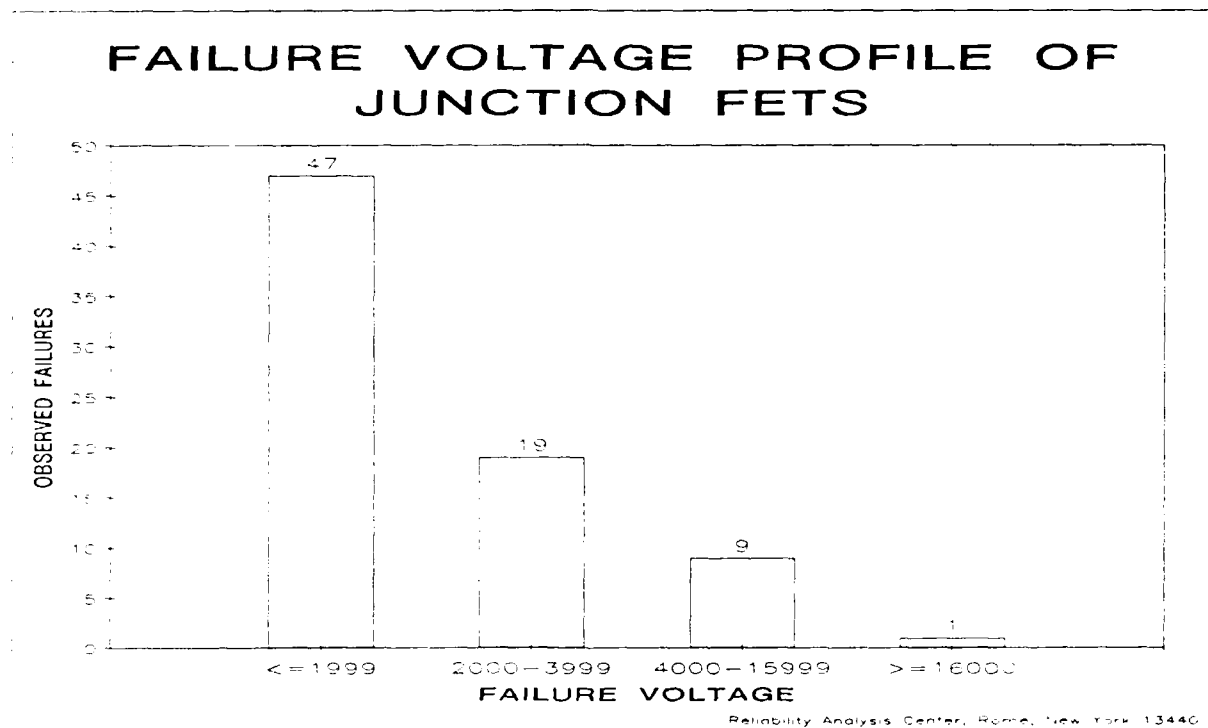


FIGURE 28

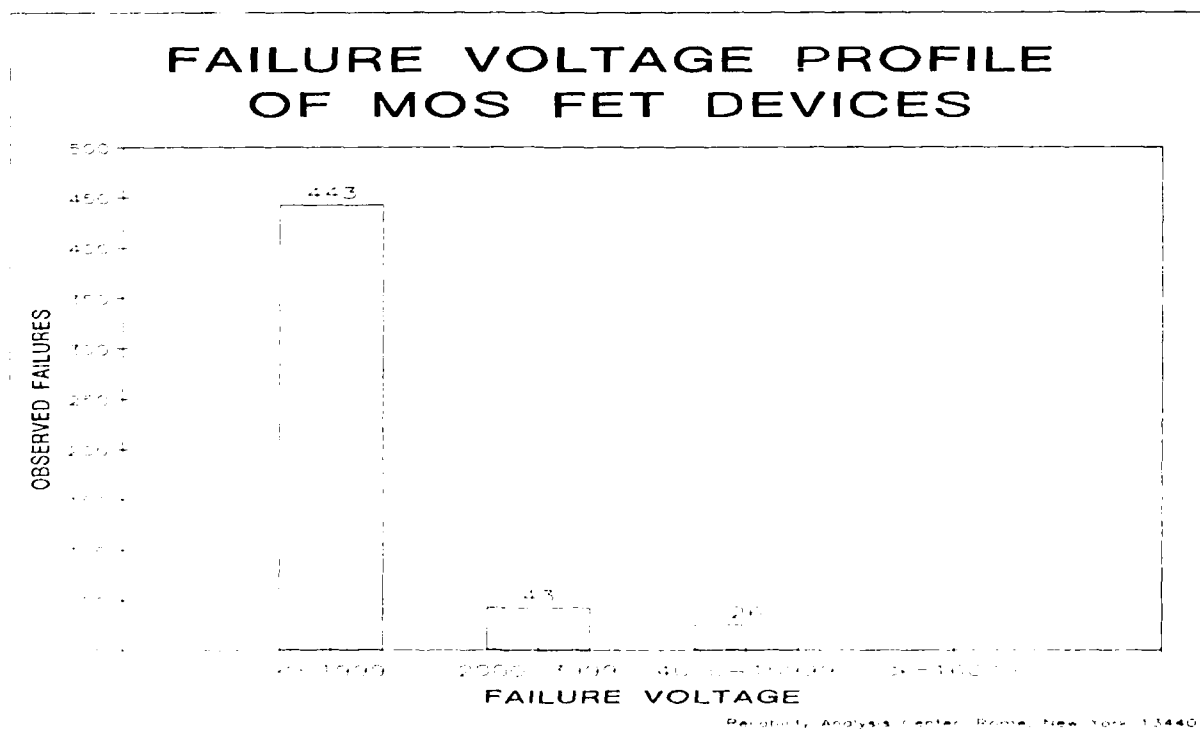


FIGURE 29

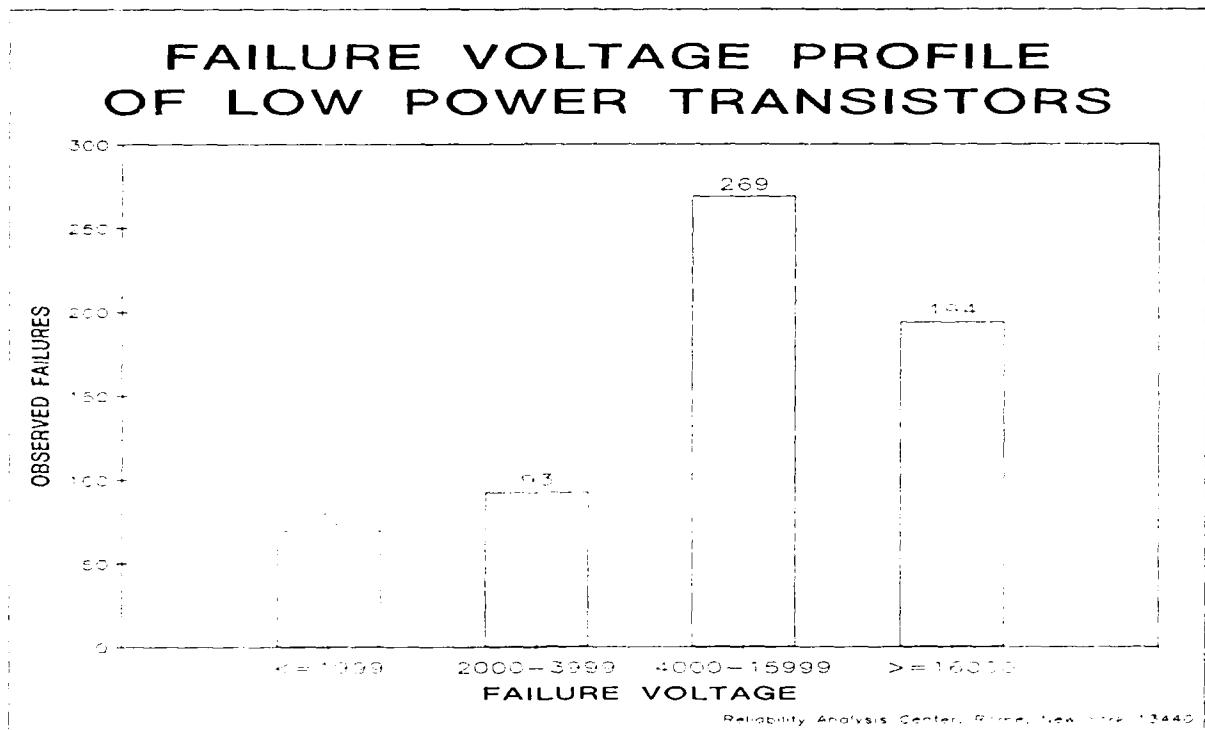


FIGURE 30

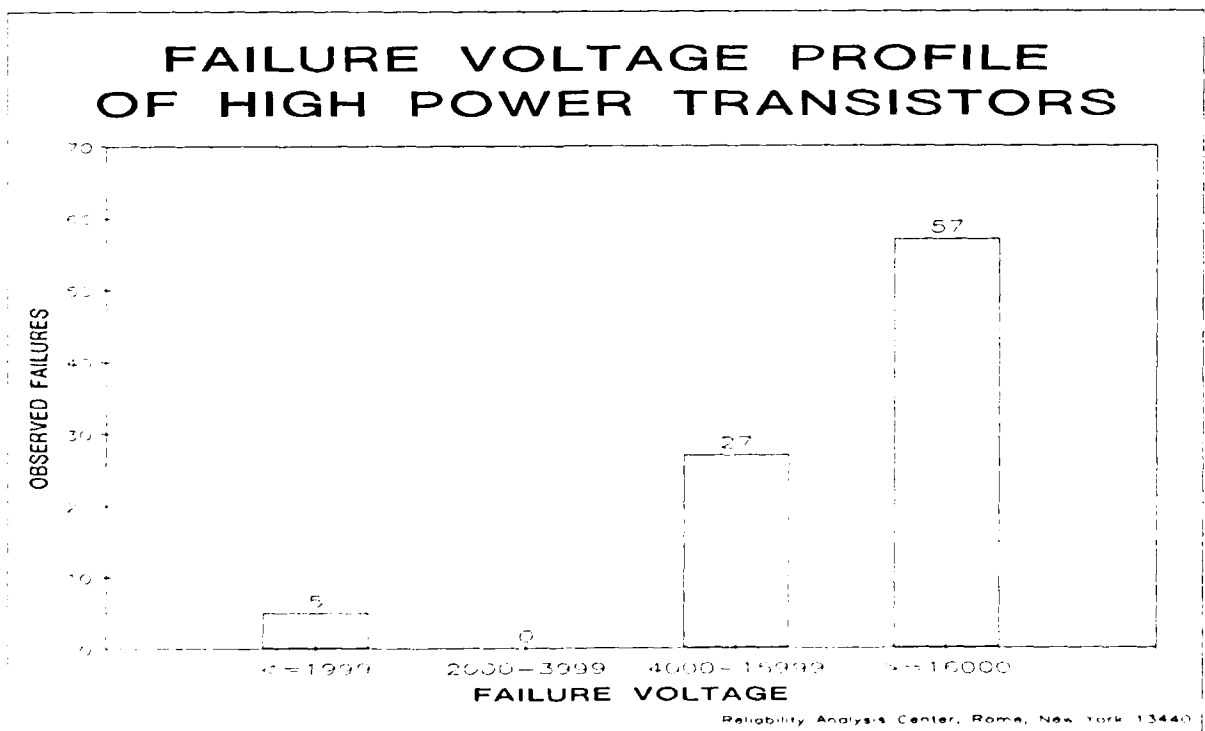


FIGURE 31

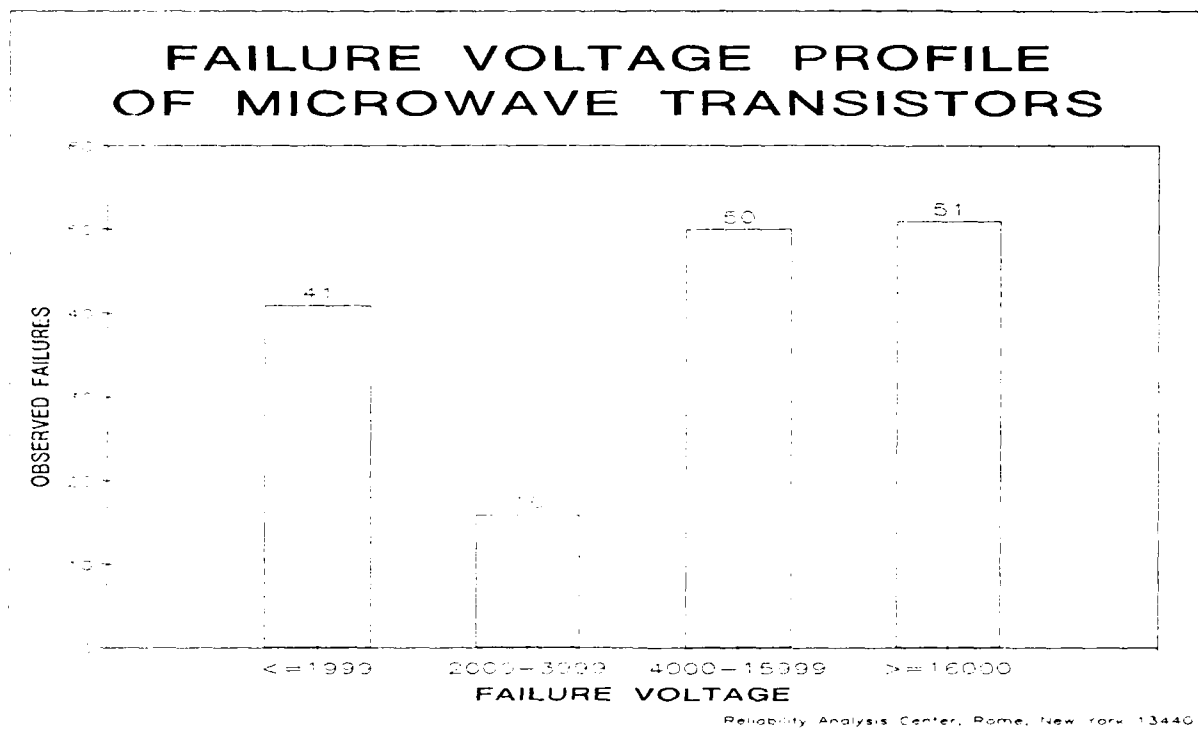


FIGURE 32

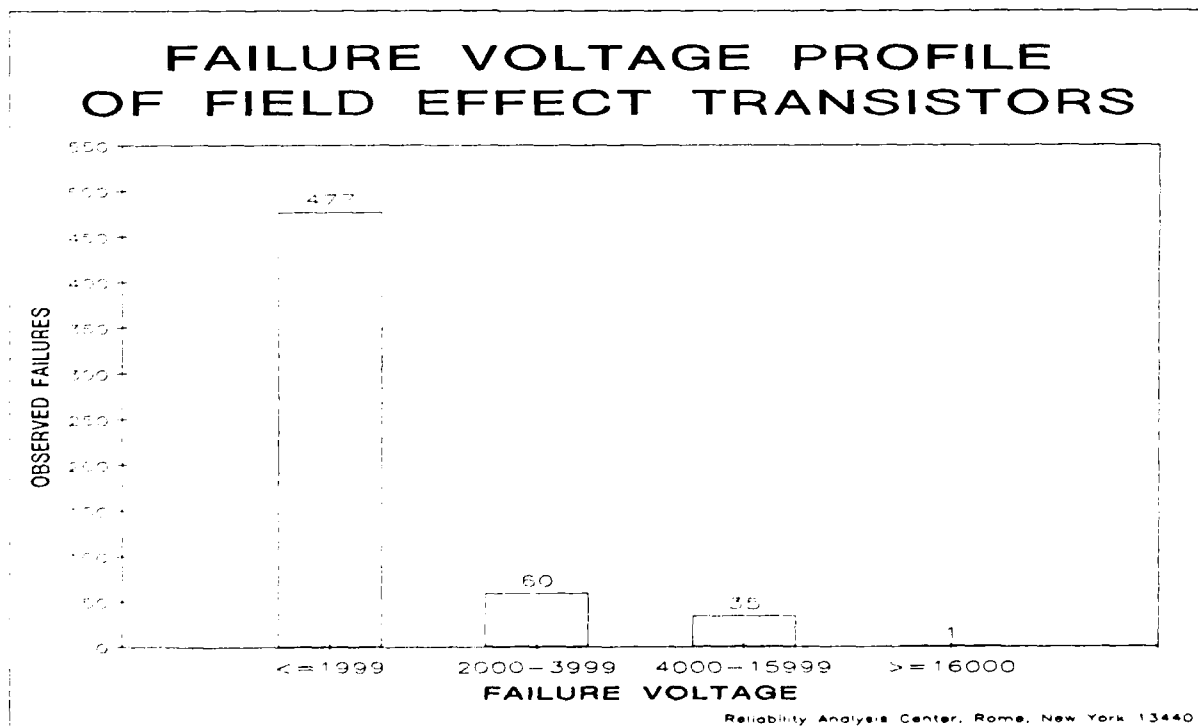


FIGURE 33

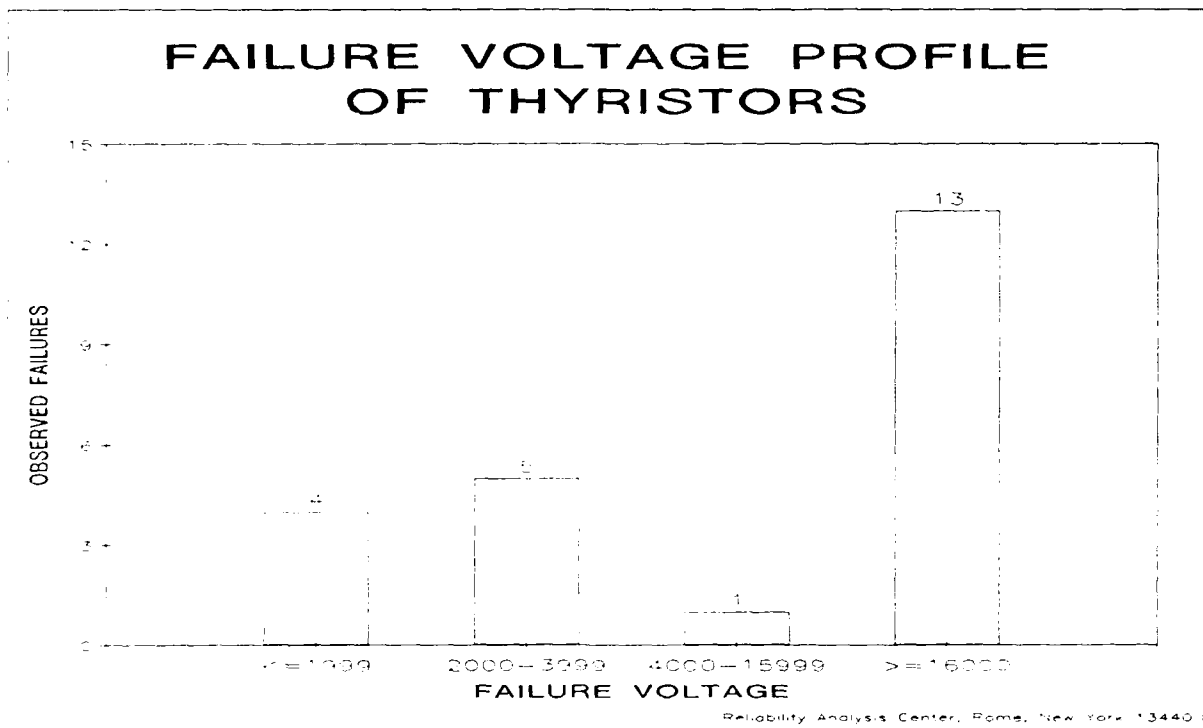


FIGURE 34

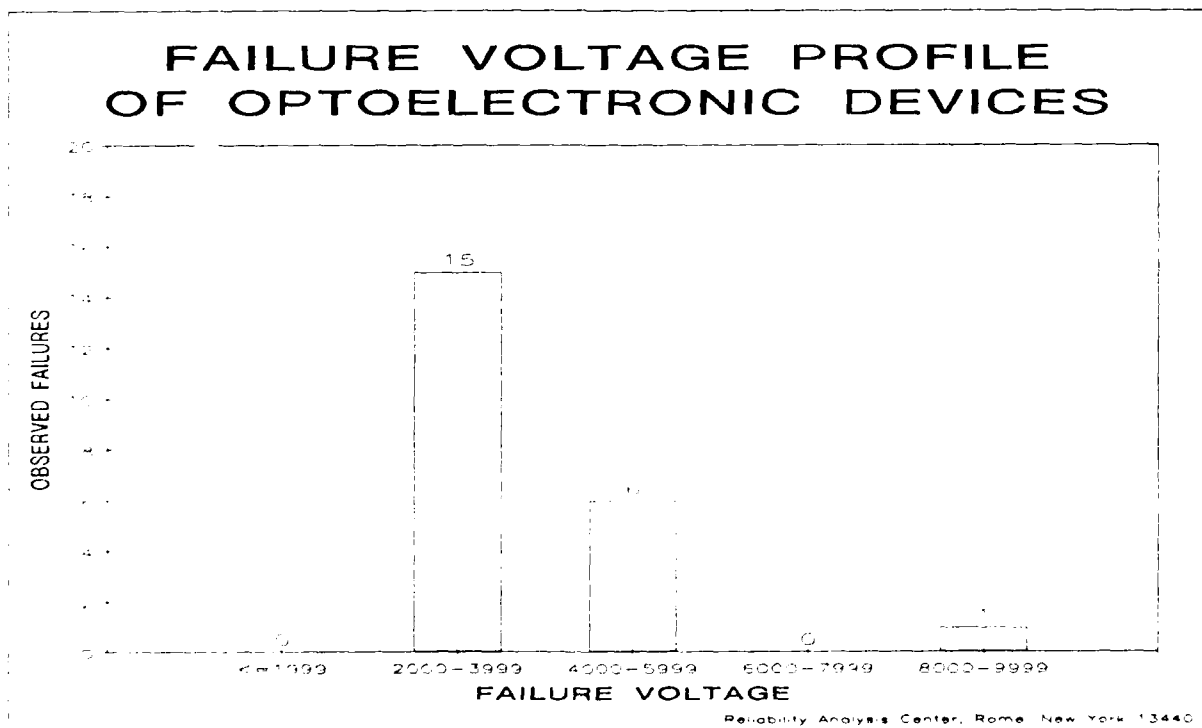


FIGURE 35

2.2 SUMMARIZED DATA - VOLTAGE VS. TECHNOLOGY

The data in this section was generated from the failure voltages of each entry in the Detailed Device Susceptibility Test Data of Section 3.0. Where necessary, the actual test voltages were converted to levels consistent with the widely recognized 100 pF, 1500 ohm human body model since mixing failure voltages of data obtained with different resistor-capacitor values and different discharge models would confound the data significantly. This data conversion methodology was discussed in Section 1.4.

It should be noted that data was also included which represents an approximate upper bound of threshold voltages (i.e., one test at one voltage was carried out on a device and a failure resulted). Thus, although exact damage threshold voltage of the device could not be determined from that one data point, it is known that the threshold is equal to or less than the test voltage.

The data as presented in this section may be somewhat biased since all data entries from the detailed data section were used. This bias comes from the fact that where one data source may have included all of the data (on all pins, for example) another may have only presented the worst-case failures (i.e., the most sensitive pin).

2.3 PERCENTAGE OF FAILURES PER TECHNOLOGY

A total of 5,501 device records were categorized during the preparation of this databook. Table 1 and 2 summarizes the percentages of each technology family, (integrated circuits and discrete semiconductors respectively) in each category of ESD classification. Section 3.0 contains the complete categorization data by part numbers.

TABLE 1: PERCENTAGE OF FAILURE RECORDS PER TECHNOLOGY-IC

TECHNOLOGY	1					2					3	
	(≤499)	(500-999)	(1000-1499)	(1500-1999)	(2000-2499)	(2500-2999)	(3000-3499)	(3500-3999)	(≥4000)			
TTL	25.7% (84)	6.1% (20)	8.6% (28)	22.3% (73)	22.9% (75)	8.3% (27)	1.5% (5)	0.3% (1)	4.3% (14)			
STTL	20.1% (99)	19.1% (94)	49.6% (244)	2.7% (13)	8.1% (40)	0.0% (0)	0.2% (1)	0.0% (0)	0.2% (1)			
LTTL	10.8% (15)	0.0% (0)	1.4% (2)	0.0% (0)	0.7% (1)	6.5% (9)	1.4% (2)	11.5% (16)	67.7% (94)			
HTTL	92.8% (52)	0.0% (0)	0.0% (0)	0.0% (0)	3.6% (2)	0.0% (0)	1.8% (1)	0.0% (0)	1.8% (1)			
LSTTL	20.0% (148)	25.8% (191)	25.3% (187)	23.2% (172)	1.5% (11)	1.6% (12)	0.7% (5)	1.5% (11)	0.4% (3)			
Advanced STTL and LSTTL	9.5% (69)	25.0% (181)	41.6% (301)	6.3% (46)	7.3% (53)	0.7% (5)	1.4% (10)	1.2% (9)	7.0% (50)			
	24.7% (18)	9.6% (7)	23.3% (17)	12.3% (9)	9.6% (7)	5.5% (4)	8.2% (6)	2.7% (2)	4.1% (3)			
MOS	17.8% (61)	22.4% (77)	34.7% (119)	7.3% (25)	9.6% (33)	0.9% (3)	1.5% (5)	2.3% (8)	3.5% (12)			
NMOS	8.2% (264)	24.4% (790)	18.6% (601)	7.9% (240)	6.7% (218)	2.9% (94)	3.7% (120)	3.1% (101)	24.5% (792)			
CMOS	26.9% (215)	31.7% (254)	11.4% (91)	3.6% (29)	6.6% (53)	8.6% (69)	3.5% (28)	0.8% (6)	6.9% (55)			
HMOS	0.0% (0)	26.0% (7)	14.8% (4)	0.0% (0)	18.5% (5)	3.7% (1)	0.0% (0)	18.5% (5)	18.5% (5)			
JFET	17.4% (15)	1.2% (1)	25.6% (22)	11.6% (10)	29.1% (25)	2.3% (2)	1.2% (1)	0.0% (0)	11.6% (10)			
BiFET	18.8% (467)	19.6% (486)	30.8% (762)	12.3% (304)	7.3% (182)	2.1% (53)	1.0% (24)	1.5% (37)	6.6% (163)			
All TTL's	16.0% (726)	18.3% (828)	25.4% (1154)	8.5% (387)	13.6% (618)	2.9% (132)	1.9% (85)	1.1% (50)	12.3% (556)			
Bipolar Microcircuits	12.6% (259)	16.6% (342)	19.1% (392)	4.0% (83)	21.2% (436)	3.8% (79)	3.0% (61)	0.6% (13)	19.1% (393)			
Bipolar and IIL	14.3% (1284)	21.8% (1956)	22.0% (1982)	7.8% (705)	10.3% (929)	3.4% (302)	2.7% (244)	1.9% (167)	15.8% (1418)			
Bipolar and MOS	13.3% (15)	7.1% (8)	23.0% (26)	8.9% (10)	26.5% (30)	2.6% (3)	0.9% (1)	4.4% (5)	13.3% (15)			
All FET's	12.5% (558)	25.3% (1128)	18.6% (828)	7.1% (318)	7.0% (311)	3.8% (170)	3.6% (159)	2.7% (117)	19.4% (862)			

TABLE 2: PERCENTAGE OF FAILURE RECORDS PER CIRCUIT TYPE-DISCRETE

CIRCUIT TYPE	1	2	3	N
	≤ 1999	2000-3999	4000-15999	> 16000
Small Signal Diode	43.7% (103)	34.3% (81)	20.3% (48)	1.7% (4)
Rectifier	6.9% (11)	11.3% (18)	49.7% (79)	32.1% (51)
Zener	0.3% (1)	0.3% (1)	18.9% (65)	80.5% (277)
Microwave Diode	57.9% (73)	7.9% (10)	31.8% (40)	2.4% (3)
Junction FET	61.8% (47)	25.1% (19)	11.8% (9)	1.3% (1)
MOS FET	86.5% (443)	8.4% (43)	5.1% (26)	0.0% (0)
Low Power Transistor	11.4% (70)	15.1% (93)	42.0% (259)	31.5% (194)
High Power Transistor	5.6% (5)	0.0% (0)	30.3% (27)	64.1% (57)
Microwave Transistor	25.9% (41)	10.1% (16)	31.7% (50)	32.3% (51)
Field Effect Transistor	83.5% (497)	10.4% (62)	5.9% (35)	0.2% (1)
Thyristor	17.4% (4)	21.7% (5)	4.4% (1)	56.5% (13)
Optoelectronic Device	0.0% (0)	68.2% (15)	31.8% (7)	0.0% (0)

SECTION 3.0

DETAILED DEVICE SUSCEPTIBILITY TEST DATA

RAC ESD DATABASE

(1) Part Number	(2) Part Mfr	(3) ESD Class	(4) Part Description		(6) Test Source	(7) Test Date	(8) Test Type	(9) Test Resistance	(10) Test Capacitance	(11) Number Pulses	(12) Date Code	(13) Number Devices	(14) Test Result	(15) Test Voltage	(16) Pin Combination	(17) Failure Criteria	(18) Test Remarks	(19) General Remarks

- (1) BASIC PART NUMBER. The part number of the device.
- (2) MANUFACTURER. Manufacturer of the device (see Table 3).
- (3) ESD CLASSIFICATION. The classification per MIL-STD-1686A and MIL-STD-883 based on the best available data.
- (4) DESCRIPTION. Basic function of the device.
- (5) TECHNOLOGY. The basic technology of the device.
- (6) TEST SOURCE. Source code - identifies the data source (see Section 5.0).
- (7) TEST DATE. Date (month and year) the test was performed.
- (8) TEST TYPE. SS = Step Stress, i.e., the device was stressed in incremental voltages and tested for failure between each one. GN = Go/No-Go, i.e., one voltage level only applied to the device and then tested for failure.
- (9) RFS. Resistance (in ohms) used in the discharge circuit.
- (10) CAP. Capacitance used in the discharge circuit (10^{-6} = microfarads, 10^{-12} = picofarads).
- (11) NUMBER PULSES. The total number of pulses applied to the device at the voltage (field no. 15) before failure (if result = fail) or before testing for failure (if result = pass).
- (12) DATE CODE. Date code as it appeared on the device.
- (13) NUM. DEV. The number of devices which were tested to the same stresses results (i.e., all other fields the same).
- (14) RESULT. Whether the device passed or failed testing at the given test conditions.

RAC ESD DATABASE

(1) Part Number	(2) Part Mfr.	(3) ESD Class	(4) Part Description			(5) Technology							(18) Test Remarks	(19) General Remarks
			(6) Test Source	(7) Test Date	(8) Test Type	(9) Test Resistance	(10) Test Capacitance	(11) Number Pulses	(12) Date Code	(13) Number Devices	(14) Test Result	(15) Test Voltage		

(15) VOLTAGE. The voltage applied to the device (if the device was step-stressed and it failed during stepping, the failure voltage is given).

(16) PIN COMBINATION. The pin combination tested: function, pin number, and polarity (if known).

(17) FAILURE CRITERIA. Criteria used to detect device failure (see Table 4).

(18) TEST REMARK. Any comment which clarifies the data with respect to the specific test record (see Table 5).

42 (19) GENERAL REMARK. Any comment which clarifies the test procedures or results (see Table 6).

RAC ESD DATABASE

Table 3 - MANUFACTURER LISTING

<u>CODE</u>	<u>MANUFACTURER NAME</u>	<u>CODE</u>	<u>MANUFACTURER NAME</u>
ALP	Alpha Industries	MOT	Motorola Semi
AM	American Microcircuits	MPI	Micropac Industries
AMD	Advanced Micro Devices	MSC	Microwave Semi Corp
AMP	Amperex Electronics	MSI	Microsystems International
ANA	Analog Devices	N/R	Not Reported
ANZ	Anzac Electronics	NCR	National Cash Register
ATM	ATMEL	NEC	Nippon Electric Company (NEC)
BEC	Beckman Instruments	NIT	Nitron
BEN	Bendix	NSC	National Semi
CCL	Craven Crystal Ltd.	NUC	Nucleonic Prod
CEN	Centralab	PLE	Plessey
CMP	Component Device Inc.	PPC	PPC Products
COD	Codi Semiconductor	PPI	Precision Products Inc.
CSI	Continental Semi. Inc.	PRE	Precision Monolithics
CYP	Cypress Semiconductor	RAY	Raytheon
DAL	Dale Electronics	RCA	RCA
DCC	Dynamic Control Corp	RI	Rockwell Intl (Includes Collins)
DEL	Delco Electronics	SCN	Semicon
DIC	Dickson Elec. Corp.	SEM	Semtech Corp.
ETC	Elec. Transistor Corp.	SEN	Sensitron Semi.
FSC	Fairchild	SEQ	SEEQ
GE	General Electric	SGS	SGS ATES
GEN	General Semiconductor	SIE	Siemens
GI	General Instruments	SIG	Signetics
GTL	Gilway Technical Lamp	SIL	Silicon General
HAR	Harris	SIX	Siliconix
HAU	Haufman	SOL	Solitron Devices
HEW	Hewlett Packard	SPR	Sprague Electric
HIT	Hitachi	SSD	Solid State Devices
HON	Honeywell	SSS	Solid State Scientific
HYB	Hybrid Systems	SUP	Supertex
HYC	Hycomp Inc.	SYN	Syntron
IDT	International Device Technologies	TEC	Teledyne Crystalonics
ITT	ITT Semiconductor	TEK	Tektronix
INM	INMOS	TEL	Teledyne
INS	Inselek	TEX	Texas Instruments
INT	Intel	THC	Thermometrics
IRC	Intl. Rectifier Corp.	TRC	Transition Elec. Corp.
ISL	Intersil	TRW	TRW
ITE	Intech	UDT	United Detector Technology
KSC	KSC Semiconductor Corp.	ULT	Ultronix Inc.
LEA	Lear Siegler	UNI	Unitrode
LTC	Linear Technology Corp.	VAR	Various
MAC	MACOM	VIS	Vishay
MAS	Microwave Associates	WES	Westinghouse
MCC	McCoy Electronics	XIC	Xicor
MIT	Micro Power Systems	ZIL	Zilog
MOM	Monolithic Memories		
MOS	Montek		

RAC ESD DATABASE

Table 4 - FAILURE CRITERIA LISTING

CODE	FAILURE CRITERIA
------	------------------

- | | |
|----|---|
| 1 | 1 UA LEAKAGE AT 10V. |
| 2 | 1 UA LEAKAGE AT 20V. |
| 3 | 10 UA INPUT LEAKAGE PREVIOUSLY MEASURED TO BE 1 UA. |
| 4 | 10% CHANGE IN ELECTRICAL PARAMETERS. |
| 5 | 10% CHANGE IN LEAKAGE CURRENT. |
| 6 | 10% PARAMETER CHANGE. |
| 7 | 110= 4 UA. |
| 8 | 2 MA LEAKAGE CURRENT OR OPEN CONDUCTOR LINES. |
| 9 | 2 UA LEAKAGE CURRENT OR OPEN CONDUCTOR LINES. |
| 10 | 2% CHANGE OF VOUT AT IL= 50UA. |
| 11 | 20 UA LEAKAGE CURRENT OR OPEN CONDUCTOR LINES. |
| 12 | 200 NA LEAKAGE CURRENT OR OPEN CONDUCTOR LINES. |
| 13 | 25% LEAKAGE, 1UA LEAKAGE, FUNCTION FAILS. |
| 14 | 50% DROP IN REVERSE VOLTAGE AT IR= 5UA. |
| 15 | 50% DROP IN V(BR) CBO AT IB= 5UA. |
| 16 | 50% DROP IN V(BR) GSS AT IG= 5UA. |
| 17 | 50% INCREASE IN GATE LEAKAGE CURRENT. |
| 18 | A 10% CHANGE IN INPUT OFFSET VOLTAGE AND INPUT BIAS CURRENT. |
| 19 | A 10% OR > CHANGE IN ANY MEASURED ELECTRICAL PARAMETER WAS CONSIDERED A FAILURE. |
| 20 | A 10% OR > INC. IN MEAS. LEAKAGE CURRENT @OR < A VOLT 10% < THE INITIAL BRKDN VOLT. |
| 21 | A CHANGE OF 0.5% OR GREATER TOLERANCE. |
| 22 | A SHIFT OF 10% OF INPUT OFFSET VOLTAGE AND INPUT BIAS CURRENT. |
| 23 | ANY MEASURABLE CHANGE IN AN ELECTRICAL PARAMETER. |
| 24 | BVBE AT IR= 100NA. |
| 25 | CATASTROPHIC FAILURE (INPUT CURRENT). |
| 26 | CATASTROPHIC. |
| 27 | CHANGE IN IGSS. |
| 28 | CHANGE IN IIH OF 10%. |
| 29 | CHANGE IN IIH OF 20NA AT VCC= 5.5V AND VIN= 2.4V. |
| 30 | CHANGE IN IIH OF 500% AT VIN= 2.7V. |
| 31 | CHANGE IN IIL OF +500% AT VIN= .45V. |
| 32 | CHANGE IN IIL OF 500% AT VIN= 5V. |
| 33 | CHANGE IN IIO OF 500%. |
| 34 | CHANGE IN IL OF +500% AT VIN= 1V. |
| 35 | CHANGE IN IR OF +500% AT VBR= 30V. |
| 36 | CHANGE IN IR OF +500% AT VR= 50V. |
| 37 | CHANGE IN IR OF 500% AT VBR= 10V. |
| 38 | CHANGE IN IR OF 500% AT VR= 35V. |
| 39 | CHANGE IN IS OF 500% AT VS= -10V. |
| 40 | CHANGE IN RESISTANCE OF .1%. |
| 41 | CHANGE IN RESISTANCE OF 2%. |
| 42 | CHANGE IN VOL OF .050V AT VCC= 4.5V, IOL= 2MA AND VIN= 2 OV. |
| 43 | CHANGE OF 0.5% OR GREATER TOLERANCE. |
| 44 | CHANGED IN IV CHARACTERISTICS WITH INPUTS HIGH. |
| 45 | CHECK FOR ANY CHANGE IN FORWARD VOLTAGE AND REVERSE LEAKAGE CURRENT. |
| 46 | CUMULATIVE LEAKAGE CURRENT. |
| 47 | D.C. PARAMETER OUT OF SPEC. |
| 48 | DAMAGE TO INPUT DIODE. |
| 49 | DEGRADATION OF V-I CURVE OR FUNCTIONAL FAILURE. |
| 50 | DEVICE CONSIDERED ESD SENSITIVE WHEN A 10%CHANGE IN ELECT. CHAR. WAS OBSERVED. |
| 51 | ELECTRICAL PARAMETERS OUT OF SPEC. |
| 52 | EXCESSIVE LEAKAGE CURRENT OR OPEN CONDUCTOR LINES. |
| 53 | FAILED THE DC ELECTRICAL PARAMETERS TEST LIMITS. |

RAC ESD DATABASE

Table 4 - FAILURE CRITERIA LISTING (Cont'd)

CODE	FAILURE CRITERIA
54	FAILED VOLTAGE IS THE AVERAGE OF PARTS SAMPLED.
55	FAILS TO MEET ELECTRICAL SPECIFICATION.
56	FUNCTION FAILURE OR D.C. PARAMETER OUT OF SPEC.
57	FUNCTIONAL FAILURE.
58	GATE CURRENT GREATER THAN 5UA AT A GATE/SOURCE VOLTAGE OF 22 VOLTS.
59	GREATER THAN .5UA INPUT AT 10V.
60	GREATER THAN 1UA LEAKAGE CURRENT AT 1.5 VOLTS.
61	GREATER THAN 5UA LEAKAGE CURRENT AT 0.5 VOLTS.
62	ID= SHORT.
63	IDSS OUT OF SPEC.
64	IEB AT VEB= +6V +1000% CHANGE.
65	IEBO AT VEB= -6V +1000% CHANGE.
66	IEBO AT VEB= 2.5V +1000% CHANGE.
67	IEBO AT VEB= 3.5V 1000% CHANGE.
68	IF AC,DC,OR FUNCTIONAL PARAMETERS FAILS THE MIN. OR MAX. LIMITS.
69	IGSS AND V(BR)GSS OUT OF SPEC.
70	IGSS AT VGS= -20V +1000% CHANGE.
71	IGSS OUT OF SPEC.
72	IGSSR >25PA AT VGS= 8V AND VDS= 0V.
73	IGSSR AND IDSS OUT OF SPEC.
74	IGSSR AND VGS(TH) OUT OF SPEC.
75	IGSSR OUT OF SPEC.
76	IGSSR,VGS(TH) OR IDSS OUT OF SPEC.
77	IIH AND VR OUT OF SPEC.
78	IIH AND/OR VOL OUT OF SPEC.
79	IIH AND/OR VR OUT OF SPEC.
80	IIH OUT OF SPEC.
81	IIH, IIL, OR ISS OUT OF SPEC AT VDD=15V.
82	IIH,IIL,ISS OUT OF SPEC.
83	IIH,IIL,OR ISS OUT OF SPEC.
84	IIH,VF,OR VR OUT OF SPEC.
85	IIH= 10MA.
86	IIH= 16MA.
87	IIH= 97UA.
88	IIL OUT OF SPEC.
89	IL AT VR= .5V +300%.
90	IL AT VR= 50V +1000% CHANGE.
91	INPUT BREAKDOWN OF 5MV.
92	INPUT SHORTED TO VCC.
93	INPUTS SHORTED TO GROUND.
94	IR AND VB OUT OF SPEC.
95	IR GREATER THAN 100% CHANGE.
96	IR OUT OF SPEC.
97	IR= 300UA AT 50 VOLTS.
98	I2 AT VR= 5V +1000% CHANGE.
99	I2 AT VR= 6.5V +1000% CHANGE.
100	LEAKAGE CURRENT.
101	LIGHT OUTPUT DEGRADATION AT CONSTANT CURRENT.
102	N/R.
103	PARAMETER CHANGE OF GREATER THAN 10%.
104	PARAMETER SHIFT OF GREATER THAN 10%.
105	PASSED FUNCTIONALLY OR DC ELECTRICAL PARAMETERS.
106	RESISTANCE CHANGE OF 1%.

RAC ESD DATABASE

Table 4 - FAILURE CRITERIA LISTING (Cont'd)

<u>CODE</u>	<u>FAILURE CRITERIA</u>
107	RESISTANCE OUT OF SPEC.
108	SIGNIFICANT AMOUNT OF DEGRADATION TO V-I CURVE.
109	SIGNIFICANT CHANGE IN THE +INPUT -GROUND V-I CURVE.
110	STUDY OF BREAKDOWN CHARACTERISTIC OF INPUT AND OUTPUT PINS.
111	TEST LEAKAGE CURRENT.
112	TESTED TO 2000 VOLTS PER METHOD 3015.2 OF MIL-STD-883.
113	V(BR)GSS OUT OF SPEC.
114	VB OUT OF SPEC.
115	VEBO= IV. TYPICALLY 5 VOLTS.
116	VGS(OFF) OUT OF SPEC AND IGSSR >25PA AT VGS= 8V AND VDS= 0V.
117	VGS(OFF) OUT OF SPEC AND/OR IGSSR >25PA AT VGS= 8V AND VDS= 0V.
118	VGS(OFF) OUT OF SPEC AT VDS= 15V AND ID= 50UA.
119	VGS(TH) AND IDSS OUT OF SPEC.
120	VGS(TH) OUT OF SPEC.
121	VR OUT OF SPEC.
122	WHEN ONE PULSE RESULTED IN DECREASE REV. LEAKAGE OR DECREASE IN JUNC. BRKDN. VOLT.
123	WHEN ONE PULSE RESULTED IN INCREASE REV. LEAKAGE OR DECREASE IN JUNC. BRKDN. VOLT.

RAC ESD DATABASE

Table 5 - TEST REMARKS LISTING

<u>CODE</u>	<u>TEST REMARKS</u>
1	1-DEV. IR SHORT, 3-100% CHANGE, 1-25% CHANGE, 5- NO CHANGE. 5 PULSES FWD & REV.
2	1.13M OHM MODEL.
3	1.1M OHM MODEL.
4	1.21M OHM MODEL.
5	1.58M OHM MODEL.
6	1.69M OHM MODEL.
7	1.78M OHM MODEL.
8	10 MHZ CRYSTAL OSCILLATOR.
9	10 OHM MODEL.
10	10000 VOLTS IS AN AVERAGE OF AN UNKNOWN NUMBER OF DEVICES.
11	107 OHM MODEL.
12	11.8 OHM MODEL.
13	12 MHZ CRYSTAL OSCILLATOR.
14	133K OHM MODEL.
15	1400 VOLTS IS AN AVERAGE OF 3 DEVICES.
16	140K OHM MODEL.
17	15 MHZ CRYSTAL OSCILLATOR.
18	150K OHM MODEL.
19	16 MHZ CRYSTAL OSCILLATOR.
20	1625 VOLTS IS AN AVERAGE OF AN UNKNOWN NUMBER OF DEVICES.
21	16300 VOLTS IS AN AVERAGE OF AN UNKNOWN NUMBER OF DEVICES.
22	1900 VOLTS IS AN AVERAGE OF AN UNKNOWN NUMBER OF DEVICES.
23	1M OHM MODEL.
24	2 DEVICES INCREASED IR FROM .09, .095 TO .85, .65UA. 5 PULSES FWD & REVERSE.
25	2 OUT OF 9 DEVICES TESTED FAILED.
26	2.1M OHM MODEL.
27	2.49M OHM MODEL.
28	2.6% OF TOTAL NUMBER OF PINS FAILED.
29	2.94M OHM MODEL.
30	20.5 OHM MODEL.
31	220 OHM MODEL.
32	232K OHM MODEL.
33	24.9 OHM MODEL.
34	240K OHM MODEL.
35	250 OHM MODEL.
36	250K OHM MODEL.
37	27.2% OF TOTAL NUMBER OF PINS FAILED.
38	270K OHM MODEL.
39	294K OHM MODEL.
40	297K OHM MODEL.
41	3.01M OHM MODEL.
42	301 OHM MODEL.
43	3200 VOLTS IS AN AVERAGE OF AN UNKNOWN NUMBER OF DEVICES.
44	330 OHM MODEL.
45	360.1K OHM MODEL.
46	38/PIN DEVICE CMOS, GATE ARRAY, SEMICUSTOM, MONOLITHIC.
47	383 OHM MODEL.
48	392K OHM MODEL.
49	4.37 OHM MODEL.
50	4.7% OF TOTAL NUMBER OF PINS FAILED.
51	400K OHM MODEL.
52	450 VOLTS IS AN AVERAGE OF AN UNKNOWN NUMBER OF DEVICES.
53	47.5 OHM MODEL.

RAC ESD DATABASE

Table 5 - TEST REMARKS LISTING (Cont'd)

CODE	TEST REMARKS
54	475 VOLTS IS AN AVERAGE OF AN UNKNOWN NUMBER OF DEVICES.
55	475K OHM MODEL.
56	49.9 OHM MODEL.
57	499 OHM MODEL.
58	5 PULSES APPLIED AT BOTH FORWARD AND REVERSE POLARITIES.
59	5 PULSES FORWARD, 5 PULSES REVERSE.
60	5 PULSES PER POLARITY. DEVICES HAD METAL LID.
61	50 OHM MODEL.
62	50% FAILURE RATE WITH ARCING BETWEEN LEADS.
63	5000 VOLTS IS AN AVERAGE OF AN UNKNOWN NUMBER OF DEVICES.
64	511K OHM RESISTOR.
65	5500 VOLTS IS AN AVERAGE OF AN UNKNOWN NUMBER OF DEVICES.
66	57.6 OHM MODEL.
67	590 OHM MODEL.
68	600 VOLTS IS AN AVERAGE OF AN UNKNOWN NUMBER OF DEVICES.
69	604K OHM MODEL.
70	665K OHM MODEL.
71	7 OUT OF 10 DEVICES FAILED COLLECTOR TO BASE.
72	768K OHM MODEL.
73	7800 VOLTS IS AN AVERAGE OF AN UNKNOWN NUMBER OF DEVICES.
74	850 VOLTS IS AN AVERAGE OF AN UNKNOWN NUMBER OF DEVICES.
75	ALL 10 INPUTS FAILED TO VSS AT 800 VOLTS.
76	ALL UNUSED INPUTS AT 5.5 VOLTS.
77	ALL UNUSED INPUTS AT GROUND.
78	ALSO DEGRADATION FROM COMMON TO OUTPUT OF 4000 VOLTS.
79	ALSO FAILED 4,5,7-13 TO VDD AT 500 VOLTS.
80	ALSO FAILED FROM 5,6 & 7 TO VSS AT 800 VOLTS.
81	ALSO FAILED FROM ALL OTHER INPUTS TO VSS AT 800 VOLTS.
82	ALSO FAILED FROM INPUT PINS 5,6,8-13 TO VSS AT 800 VOLTS.
83	ALSO FAILED FROM PIN 7 TO OUTPUT AT 1000 VOLTS.
84	ALSO FAILED FROM PINS 4-8 AND 11-13 TO VSS AT 800 VOLTS.
85	ALSO FAILED FROM PINS 5,6,7,11 TO VDD AT 1000 VOLTS.
86	ALSO FAILED FROM PINS 5-13 TO VSS AT 800 VOLTS.
87	ALSO FAILED FROM PINS 8-13 TO VSS AT 800 VOLTS.
88	ALSO FAILED PIN 12 TO VDD AT 500 VOLTS.
89	ALSO FAILED PIN 4 TO VDD, 5-7,9-13 TO OUTPUT AT 500 VOLTS
90	ALSO FAILED PIN 9 TO OUTPUT AT 800 VOLTS.
91	ALSO FAILED PIN 9 TO VDD AND 8 TO OUTPUT AT 1000 VOLTS.
92	ALSO FAILED PIN 9 TO VSS AT 800 VOLTS.
93	ALSO FAILED PINS 4,5 & 9 TO VSS AT 800 VOLTS.
94	ALSO FAILED PINS 5 AND 10 TO VDD AT 800 VOLTS.
95	ALSO FAILED PINS 5-13 TO OUTPUT AT 500 VOLTS
96	ALSO FAILED PINS 5-13 TO VSS AT 800 VOLTS
97	ALSO INPUT TO GND DEGRADED AT 1800 VOLTS.
98	ALSO SHOWED DEGRADATION ON INPUT TO INPUT AT 2000 VOLTS.
99	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 1000V.
100	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 1020V.
101	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 1025V.
102	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 1060V.
103	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 1070V.
104	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 1080V.
105	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 1100V.
106	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 1125V.

RAC ESD DATABASE

Table 5 - TEST REMARKS LISTING (Cont'd)

<u>CODE</u>	<u>TEST REMARKS</u>
107	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 1170V.
108	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 1200V.
109	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 1310V.
110	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 1325V.
111	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 1350V.
112	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 1360V.
113	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 1600V.
114	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 1675V.
115	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 1700V.
116	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 1750V.
117	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 2300V.
118	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 2400V.
119	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 2450V.
120	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 2500V.
121	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 2600V.
122	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 2700V.
123	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 2900V.
124	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 3000V.
125	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 3200V.
126	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 3444V.
127	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 3500V.
128	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 3550V.
129	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 3700V.
130	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 3760V.
131	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 3800V.
132	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 3900V.
133	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 4550V.
134	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 5200V.
135	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 550V.
136	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 600V.
137	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 700V.
138	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 725V.
139	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 750V.
140	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 800V.
141	AVERAGE FAILURE VOLTAGE FOR ALL PINS IS 850V.
142	AVG OF ALL INPUTS 940V, PINS 1,2,15 MOST SUSCEPTIBLE.
143	AVG OF ALL INPUTS 960V, PIN 15 MOST SUSCEPTIBLE.
144	AVG OF ALL INPUTS 960V, PINS 11,14 MOST SUSCEPTIBLE.
145	BOTH POLARITIES WERE TESTED.
146	BREAKDOWN VOLTAGE CHARACTERISTICS WERE DEGRADED.
147	CARRY LOOK AHEAD GENERATOR.
148	CATASTROPHIC FAILURES OBSERVED ARE DUE TO EMIT. CONTACT PENETRATING THE SILICON.
149	CHARGED DEVICE MODEL.
150	COLLECTOR TO BASE FOUND TO BE MOST SENSITIVE (BOTH POLARITIES).
151	COMMON TO OUTPUT SHOWED DEGRADATION AT 4000 VOLTS.
152	CRYSTAL (4 Mhz).
153	DAMAGE OBSERVED AT -700 VOLTS, FAILED AT 1100 VOLTS.
154	DAMAGE OBSERVED AT 1000 VOLTS, ALL PINS FAILED AT OR BEFORE 3500 VOLTS.
155	DAMAGE OBSERVED AT 1050 VOLTS, ALL INPUT PINS FAILED AT OR BEFORE 2000 VOLTS.
156	DAMAGE OBSERVED AT 150 VOLTS, ALL DEVICES FAILED AT OR BEFORE 400 VOLTS.
157	DATE CODE TESTED WERE BETWEEN 8134 TO 8715.
158	DEGRADATION OCCURRED AT 1000V.
159	DEGRADATION OCCURRED AT 1500V.

RAC ESD DATABASE

Table 5 - TEST REMARKS LISTING (Cont'd)

CODE	TEST REMARKS
160	DEGRADATION OCCURRED AT 2000V.
161	DEGRADATION OCCURRED AT 3000V.
162	DEGRADATION OCCURRED AT 3500V.
163	DEGRADATION OCCURRED AT 4500V.
164	DEGRADATION OCCURRED AT THE APPLIED VOLTAGE.
165	DELAY LINE, PULSE, ELECTROMAGNETIC, LUMPED CONSTANT, 16 PIN DIP.
166	DEVICE PASSED THE REVERSE V-I CURVE AFTER TESTING.
167	DIFFERENT PIN COMB. TESTED AT EACH VOLTAGE STEP.
168	DRIVER / RECEIVER.
169	DUAL PNP TRANSISTOR.
170	EACH PIN STRESSED WITH ALL OTHER PINS CONNECTED TO GROUND.
171	EACH PIN TESTED TO ALL OTHERS TIED TOGETHER.
172	EMITTER TO BASE FAILED AT 3500 VOLTS.
173	FAILED FROM PINS 4,8,13 TO VDD AND 10 TO OUTPUT AT 500 V.
174	FAILED INPUTS TO GND. VOLT IS AVG. OF 4 DEV. MEAN ENGY=16UJ.
175	FAILED PIN 13 TO VDD AT 500 V, 8 TO VSS, 6 TO VDD AT 800 V.
176	FAILED PIN 16 TO VDD AT 500 V & PIN 5 TO VSS AT 800 V.
177	FAILED PINS 13 TO VDD AND PIN 4 TO OUTPUT AT 800 VOLTS.
178	FAILED PINS 5-6,11-13 TO VSS 7 TO VDD & 8-10 TO OUTPUT 500V.
179	FAILED PINS 5-7,9,11 TO VSS 8,10,12 TO VDD AT 500 VOLTS.
180	FAILED PINS 5-8 & 10-13 TO VSS & PIN 9 TO VDD AT 500 VOLTS.
181	FAILED PINS 5-8 & 10-13 TO VSS AT 500V & 9 TO VSS AT 800 V.
182	FAILED PINS 8,13 TO VSS, 15 TO VSS AND 6 TO VDD, ALL AT 800V.
183	FAILED PINS 8-13 TO VSS AT 300V & PINS 4,6 TO OUTPUT AT 500V
184	FAILURE VOLTAGE FROM EMP DATA & WUNSCH MODEL. (SUPERSAP 2).
185	FAILURE VOLTAGE GIVEN IS APPROXIMATE VALUE ONLY.
186	FAILURE VOLTAGE IS AN AVERAGE OF 15 DEVICES.
187	FAILURE VOLTAGE IS AN AVERAGE.
188	FAILURE VOLTAGE OBTAINED FROM EMP DATA AND EXPONENTIAL MODEL.
189	FAILURE VOLTAGE OBTAINED FROM EMP DATA AND WUNSCH MODEL.
190	FAILURE VOLTAGE OBTAINED FROM EMP DATA.
191	FAILURES WERE DUE TO INCREASED CONTACT RESISTANCE.
192	FIVE PULSES BOTH POLARITY ACROSS EACH PIN COMBINATION.
193	FREQUENCY SYNTHESIZER.
194	HEX SCHMIDT TRIGGER.
195	HYBRID, OSCILLATOR.
196	IMCS TO >17.5KV, PAL TESTER TO >43KV. PAL IS A MOTOROLA IN HOUSE BUILT TESTER.
197	IN MOST FAILURES, Vos STARTS FAILING FIRST. THEN, Ios,IB,AND Icc.
198	INITIAL IGSS IS 0.1uA AND FINAL IGSS IS 10uA.
199	INITIAL IGSS IS 3.8uA AND FINAL IGSS IS 10uA.
200	INITIAL IGSS WAS 0.1uA AND FINAL IGSS WAS 1.0uA.
201	INITIAL IGSS WAS 0.1uA AND THE FINAL IGSS WAS 0.7uA.
202	INITIAL IGSS WAS 1.0uA AND FINAL IGSS WAS 3.4uA.
203	INITIAL IGSS WAS 1uA AND FINAL IGSS WAS 10uA.
204	INPUT AND CLAMPING DIODES WERE TYPICAL FAILURES.
205	INPUT FAILED AT 2500 AND 3000 VOLTS, OUTPUT DID NOT FAIL.
206	INPUT PIN 1 FAILED AT 200V AND INPUT PIN 8 FAILED AT 300V.
207	INPUT PIN 1 FAILED AT 200V AND INPUT PIN 8 FAILED AT 400V.
208	INPUT PIN 1 FAILED AT 200V.
209	INPUT PIN 1 FAILED AT 300V.
210	INPUT PIN 1 FAILED AT 400V AND INPUT PIN 8 FAILED AT 500V.
211	INPUT PIN 1 FAILED AT 500V.
212	INPUT PIN 10 FAILED AT 300V.

RAC ESD DATABASE

Table 5 - TEST REMARKS LISTING (Cont'd)

<u>CODE</u>	<u>TEST REMARKS</u>
213	INPUT PIN 2 FAILED AT 200V.
214	INPUT PIN 2 FAILED AT 300V.
215	INPUT PIN 2 FAILED AT 400V.
216	INPUT PIN 2 FAILED AT 500V.
217	INPUT PIN 7 FAILED AT 200V.
218	INPUT PIN 8 FAILED AT 400V.
219	INPUT PIN 9 FAILED AT 400V.
220	INPUT PINS 1 AND 8 FAILED AT 300V.
221	INPUT PINS 1 AND 8 FAILED AT 400V.
222	INPUT PINS 1 AND 8 FAILED AT 500V.
223	INPUT PINS 1 AND 9 FAILED AT 200V.
224	INPUT PINS 11 AND 15 FAILED AT 200V.
225	INPUT PINS 2 AND 10 FAILED AT 200V.
226	INPUT PINS 2 AND 6 FAILED AT 200V.
227	INPUT PINS 2 AND 6 FAILED AT 300V.
228	INPUT PINS 7 AND 15 FAILED AT 300V.
229	INPUT TO COM. 3000 V, OUTPUT TO COMMON FAIL AT 1600 VOLTS.
230	INPUT TO OUTPUT DEGRADATED AT 600 VOLTS.
231	INPUTS STRESSED NO PINS GND CAP. OF PACKAGE TO GND IS 290PF.
232	INPUTS STRESSED NO PINS GND CAP. OF PACKAGE TO GND IS 3.5PF.
233	INPUTS STRESSED NO PINS GND CAP. OF PACKAGE TO GND IS 37PF.
234	INPUTS STRESSED NO PINS GND CAP. OF PACKAGE TO GND IS 3PF.
235	INPUTS STRESSED NO PINS GND CAP. OF PACKAGE TO GND IS 6.5PF.
236	INTEL METHOD.
237	INTEL MODEL.
238	IR CHANGED FROM .045uA TO 22.JuA ON ONE DEVICE. 5 PULSES FORWARD AND REVERSE.
239	IR CHANGED FROM .103uA, 200V TO .4uA, 80 VOLTS. 5 PULSES FORWARD & REVERSE.
240	IR DOUBLED AFTER 400 VOLTS, SHORTED AFTER 500 VOLTS.
241	IR INCREASED FROM .05uA TO 148uA. 5 PULSES FORWARD, 5 PULSES REVERSE.
242	IR INCREASED FROM .19mA TO .23mA. 5 PULSES FORWARD, 5 PULSES REVERSE.
243	IR INCREASED ON 3 DEVICES; 5.4 TO 6.2uA, 3.7 TO 4.1uA, AND 4.6 TO 5.6uA.
244	JUNCTION IS DAMAGED BEFORE DEVICE FAILS ELECTRICALLY.
245	LED DEVICES WHICH HAVE REV BRKDNW DAMAGE CAUSED BY ESD MAY FUNC NORM IN FWD DIR.
246	MICROCONTROLLER.
247	MIL-STD-883B METHOD 3015 (CAT B), DEVICE PASSED 2000V TEST.
248	MINIMUM OBSERVED DAMAGE WAS 200 VOLTS ALL DEVICES FAILED AT OR BELOW 300 VOLTS.
249	MINIMUM OBSERVED DAMAGE WAS 500 VOLTS ALL INPUT PINS FAILED AT OR BEFORE 700 V.
250	MINIMUM OBSERVED WAS 2600 VOLTS, ALL DEVICES FAILED AT OR BEFORE 3000 VOLTS.
251	MODULATOR.
252	N/R.
253	NO DEGRADATION TO OUTPUT AT 4000 VOLTS.
254	NO DEGRADATION TO OUTPUT PINS.
255	NO FAILURES OBSERVED GATE TO CATHODE.
256	OF 4 DEVICES FAILURE VOLTAGE WAS FROM 1400V TO 6000 VOLTS.
257	OF THE FOUR DEVICES TESTED TWO DEVICE DATE CODES WERE GIVEN AS 8615 AND 8501.
258	ONE DEVICE IR SHORTED. 5 PULSES FORWARD, 5 PULSES REVERSE.
259	OTHER PINS OPEN.
260	OTHER PINS TIED TO GND.
261	PAL TESTER IS A MOTOROLA IN HOUSE BUILT IMCS TO >17.5KV, PAL TO >43KV.
262	PIN UNDER TEST STRESSED WITH ALL OTHERS TIED TOGETHER FLOATING.
263	PINS 1 AND 2 FAILED AT 1100 VOLTS.
264	PINS 11-14 TO VSS, 15 TO VDD AT 800V, 8, 13 TO OUTPUT AT 1000V.
265	PINS 13 TO VSS, 9 TO VSS AT 1000V, 8 TO VDD AT 1000 VOLTS.

RAC ESD DATABASE

Table 5 - TEST REMARKS LISTING (Cont'd)

LINE	TEST REMARKS
------	--------------

266	PINS 3,4,5, AND 22 FAILED AT 1200 VOLTS.
267	PINS 8-15 TO VSS AT 500V, 11 TO OUTPUT AT 500 VOLTS.
268	PINS THAT FAILED 3,6-8,11,14,15,17-21, AND 23.
269	PRECISION MOTION CONTROLLER.
270	PROGRAMMABLE BAND PASS FILTER.
271	PROGRAMMABLE INTERVAL TIMER.
272	QUAD DEVICE, ONE DIODE PER DEVICE TESTED.
273	SEMI-CUSTOM GATE ARRAY.
274	SERIAL INPUT PLL FREQUENCY SYNTHESIZER.
275	TEST PREPARED AT 25 DEGREES C.
276	THE MOST SENSITIVE PIN TESTED IS B.
277	THE MOST SENSITIVE PIN TESTED IS G.
278	THE MOST SENSITIVE PINS TESTED ARE C TO B.
279	THE MOST SENSITIVE PINS TESTED ARE C TO E.
280	THE MOST SENSITIVE PINS TESTED ARE E TO B.
281	THE MOST SENSITIVE PINS TESTED ARE G AND D TO S.
282	THE MOST SENSITIVE PINS TESTED ARE S AND D TO G.
283	THE MOST SENSITIVE PINS TESTED ARE S AND G TO D.
284	VOLTAGE IS AN AVERAGE OF 12 RESISTORS. MEAN ENERGY OF 48UJ.
285	VOLTAGE IS AN AVERAGE OF 4 DEVICES.
286	VOLTAGE IS AN AVERAGE OF ALL INPUTS.
287	WORST CASE PINS (+) 1-4,9,10,20,23-27(-)1,10.LOT # (413,410-1).
288	WORST CASE PINS (+) 4-6,22,23,25-27 (-) 20,21. LOT # (284/006,285/008,416-3).
289	ZERO OHMS MODEL.

RAC ESD DATABASE

Table 6 - GENERAL REMARKS LISTING

CODE GENERAL REMARKS

- 1 5 PULSES +/-.
- 2 ALL PINS BUT PIN UNDER TEST CONNECTED TO GND VIA RESISTOR. VDD AND VSS GROUNDED.
- 3 BEGIN WITH 200V, INCR. 100V TO 1000V, INCR. 200V TO 2000V, INCR 500V TO 4000V.
- 4 CHARGED DEVICE MODEL.
- 5 DATA OBTAINED FROM WEIBULL PLOTS. STEPS WERE 20% OF AN UNKNOWN STARTING VOLTAGE.
- 6 DEVICE PASSED REVERSE V-I CURVE. FORWARD AND REVERSE POLARITY TESTED.
- 7 FAILED VOLTAGE IS THE AVERAGE OF PARTS SAMPLED.
- 8 FAILURE VOLTAGE OBTAINED FROM EMP DATA AND EXPONENTIAL MODEL.
- 9 FAILURE VOLTAGES GIVEN ARE VOLTAGE TO CAUSE 30% FAILURE. DETAILS UNKNOWN.
- 10 IMCS TESTER TO >17.5KV, PAL TESTER TO >43KV. ONE PULSE PER VOLTAGE INCREMENT.
- 11 IN ACCORDANCE WITH MIL-STD-883B METHOD 3015 (CAT B), DEVICE PASSED 2000V TESTING.
- 12 MODEL 900.
- 13 N/R.
- 14 PIN COMBINATIONS AND POLARITY DIFFER FOR EACH OF THE FOUR PULSES.
- 15 PIN UNDER TEST STRESSED WITH ALL OTHER PINS TIED TOGETHER GROUNDED.
- 16 PIN UNDER TEST STRESSED WITH ALL OTHER PINS.
- 17 START 100V WITH INCREMENTS OF 100V TO 1000V. THEN INCREMENTS OF 250V TO FAILURE.
- 18 STEP STRESS TEST WAS PERFORMED HOWEVER ACTUAL VOLTAGE STEPS WERE UNKNOWN.
- 19 STEPPED FROM 1800 VOLTS TO FAILURE IN 25 VOLT INCREMENTS.
- 20 STEPPED IN 100 VOLT INCREMENTS STARTING AT 400 VOLTS.
- 21 STEPPED IN 2.5 VOLT INCREMENTS.
- 22 STEPPED IN 25 VOLT INCREMENTS.
- 23 STRESSED IN INCREMENTS OF 20% STARTING AT 16V FOR MOS DEVICES AND 70V FOR OTHERS.
- 24 TEST VOLTAGE WAS INCREMENTED FROM 100V TO 5500V IN 100V STEPS.
- 25 TESTED TO 2000 VOLTS PER METHOD 3015.2 OF MIL-STD-883.
- 26 TESTER IS A MARTIN MARIETTA IN HOUSE BUILT.
- 27 THERE WERE ALSO 100V INCREMENTS STEPPED FROM 100V TO 800V.
- 28 VOLT INCREMENTS AS FOLLOWS:100V TO 1KV,250V TO 3KV,500V TO 6KV,AND 1KV TO 16KV.
- 29 VOLTAGE STEP LEVELS 100 VOLT INCREMENTS UP TO 4000 VOLTS.

SECTION 3.1

MICROCIRCUIT SUSCEPTIBILITY TEST DATA

RAC ESD Database

Part Number	Part ESD		Part Description	Technology																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
	Mfr	Class		Bipolar																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
0042	INT	1	Linear, Operational Amplifier	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test

RAC ESD Database

[illegible]

RAC ESD Database

Part Number	Part ESD	Part	Description				Technology									
			Mfr	Class	Description		Technology									
105	N/C	3	Linear, Voltage Regulator				Bipolar									
			Test	Test	Test	Test	Test	Test								
			Source	Date	Type	Resistance	Capacitance	Pulses	Code	Devices	Result	Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
			029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	6767	N/R	102	188	13
105	N/R	2	Linear, Voltage Regulator				Bipolar									
			Test	Test	Test	Test	Test	Test								
			030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	4000	N/R	103	252	13
10501	MOT	2	Digital, Gate				ECL									
			Test	Test	Test	Test	Test	Test								
			026	0281	SS	100 Ohms	200E-12 F	1	N/R	4	FAILED	440	N/R	32	285	13
10502	MOT	1	Digital, Gate				ECL									
			Test	Test	Test	Test	Test	Test								
			392	1086	SS	1500 Ohms	100E-12 F	1	N/R	5	FAILED	1250	EACH PIN TO 4 & 12 (+ -)	19	252	13
										5	FAILED	1250	EACH PIN TO 8 & 16 (+ -)	19	252	13
10503	MOT	1	Digital, Flip-Flop				ECL									
			Test	Test	Test	Test	Test	Test								
			392	1086	SS	1500 Ohms	100E-12 F	1	N/R	5	FAILED	1500	EACH PIN TO 4 & 12 (+ -)	19	252	13
10505	MOT	1	Digital, Gate				ECL									
			Test	Test	Test	Test	Test	Test								
			392	1086	SS	1500 Ohms	100E-12 F	1	N/R	5	FAILED	850	EACH PIN TO 8 & 16 (+ -)	19	252	13
10507	MOT	1	Digital, Gate				ECL									
			Test	Test	Test	Test	Test	Test								
			392	1086	SS	1500 Ohms	100E-12 F	1	N/R	5	FAILED	1000	EACH PIN TO 4 & 12 (+ -)	19	252	13
10513	N/R	1	Digital, Gate				ECL									
			Test	Test	Test	Test	Test	Test								
			028	N/R	SS	1500 Ohms	117E-12 F	30	N/R	5	FAILED	1500	N/R	85	252	13

RAC ESD Database

Part Number	Part ESD		Part		Description		Technology	
	Mfr	Class	Test	Test	Test	Test	Criteria	Remarks
10524	MOT	1	1086 SS	1500 Ohms	100E-12 F	1 N/R	19	252
							19	145
							19	145
10525	MOT	1	1086 SS	1500 Ohms	100E-12 F	1 N/R	19	145
							19	145
108	N/R	1	N/R	1500 Ohms	100E-12 F	1 N/R	19	145
							19	145
							19	145
109	N/R	3	N/R	1500 Ohms	100E-12 F	1 N/R	19	145
							19	145
							19	145
109	FS	2	N/R	1500 Ohms	100E-12 F	1 N/R	19	145
							19	145
							19	145
11011	INT	2	N/R	1500 Ohms	100E-12 F	1 N/R	19	145
							19	145
							19	145
11201	N/R	3	N/R	1500 Ohms	100E-12 F	1 N/R	19	145
							19	145
							19	145

RAC ESD Database

Part Number	Part ESD		Part Description	Test										Technology			
	Mfr	Class		Test Date	Test Type	Resistance	Capacitance	Pulses	Number	Date	Code	Devices	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks
11331	N/R	3	Linear, Switch	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	6000 N/R		103	252	13
117	N/R	3	Linear, Voltage Regulator	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	10000 N/R		103	252	13
118	N/R	3	Linear, Operational Amplifier	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	11000 N/R		103	252	13
119	N/R	1	Linear, Comparator	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500 N/R		103	252	13
120	N/R	3	Linear, Voltage Regulator	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	10000 N/R		103	252	13
124	N/R	1	Linear, Operational Amplifier	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500 N/R		103	252	13
	N/R	SS		245	N/R	N/R	100 Ohms	N/R	1	N/R	15	FAILED	164 INPUT(+) GND(-)		47	186	21

Part Number	Part ESD		Part Description	Test				Number		Test		Voltage		Pin Combination		Failure Test		General	
	Mfr	Class		Source	Date	Type	Resistance	Capacitance	Pulses	Code	Devices	Result	Test	Pin	Combination	Criteria	Remarks	Remarks	
13201	N/R	3	Linear, Switch	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	6000 N/R			103	252	13	JFET
139	N/R	1	Linear, Comparator	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	2000 N/R			103	252	13	Bipolar
											1	FAILED	2000 N/R			103	252	13	
	245	N/R	SS	100	Ohms	N/R			1	N/R	15	FAILED	102 V+(+) INPUT(-)			47	186	21	
14000	MOT	2	Digital, Gate	029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	3301 N/R			102	188	13	CMOS
											1	FAILED	2856 N/R			102	188	13	
14001A	MOT	1	Digital, Gate	111	0478	SS	1500 Ohms	150E-12 F	1	N/R	3	FAILED	850 INPUT A(+) INPUT B(-)			56	252	5	CMOS
											10	FAILED	1450 INPUT A(+) INPUT B(-)			56	252	5	
											10	FAILED	2060 INPUT A(+) INPUT B(-)			56	252	5	
											2	PASSED	2060 INPUT A(+) INPUT B(-)			56	252	5	
14001B	MOT	1	Digital, Gate	112	0478	SS	1500 Ohms	150E-12 F	1	N/R	3	FAILED	1630 INPUT A(+) INPUT B(-)			56	252	5	CMOS
											10	FAILED	2400 INPUT A(+) INPUT B(-)			56	252	5	
											10	FAILED	3100 INPUT A(+) INPUT B(-)			56	252	5	
											2	PASSED	3100 INPUT A(+) INPUT B(-)			56	252	5	
14006B	MOT	2	Digital, Register, Shift	436	1*86	SS	1500 Ohms	100E-12 F	16	8640	3	FAILED	3000 INPUT TO GND			5	252	3	CMOS

RAC ESD Database

Part Number	Part ESD		Part Description	Technology
	Mfr Class	1		
14013A	MOT	1	Digital, Flip-Flop	CMOS

Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Number Pulses	Number Devices	Test Result	Test Voltage	Test Pin Combination	Failure Criteria	Test Remarks	General Remarks
113	0478	SS	1500 Ohms	150E-12 F	1	N/R	3 FAILED	1200	RESET(+) CLOCK(-)	56	252	5
							10 FAILED	1560	RESET(+) CLOCK(-)	56	252	5
							10 FAILED	2150	RESET(+) CLOCK(-)	56	252	5
							2 PASSED	2150	RESET(+) CLOCK(-)	56	252	5

14013B MOT 1 Digital, Flip-Flop

CMOS

114	0478	SS	1500 Ohms	150E-12 F	1	N/R	3 FAILED	1550	DATA(+) RESET(-)	56	252	5
							10 FAILED	2100	DATA(+) RESET(-)	56	252	5
							10 FAILED	2500	DATA(+) RESET(-)	56	252	5
							2 PASSED	2500	DATA(+) RESET(-)	56	252	5

RAC ESD Database

14018 MOT 1 Digital, Counter/Divider

CMOS

007	N/R	GN	1500 Ohms	100E-12 F	1	N/R	2 PASSED	400	N/R	82	252	13
008	N/R	GN	1500 Ohms	100E-12 F	1	N/R	2 PASSED	600	N/R	82	252	13
009	N/R	GN	1500 Ohms	100E-12 F	1	N/R	2 PASSED	800	N/R	82	252	13
010	N/R	GN	1500 Ohms	100E-12 F	1	N/R	2 PASSED	1000	N/R	82	252	13

14021

INT 3 Digital, Register, Shift

CMOS

029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1 FAILED	4733	N/R	102	189	13
-----	-----	-----	-----------	-----------	---	-----	----------	------	-----	-----	-----	----

14046

MOT 1 Linear, Phase Lock Loop

CMOS

007	N/R	GN	1500 Ohms	100E-12 F	1	N/R	2 FAILED	400	N/R	82	252	13
-----	-----	----	-----------	-----------	---	-----	----------	-----	-----	----	-----	----

RAC ESD Database

Part Number	(Cont'd)	Part ESD		Part Description											Technology	
		Mfr	Class												CMOS	
14046		MOT 1 Linear, Phase Lock Loop														
		Test Source	Test Date	Test Type	Resistance	Capacitance	Pulses	Number	Date	Devices	Code	Pin	Combination	Test Result	Test Voltage	General Remarks
		008	N/R	GN	1500 Ohms	100E-12 F	1 N/R	1 N/R	2 FAILED	600 N/R				82	252	13
		009	N/R	GN	1500 Ohms	100E-12 F	1 N/R	1 N/R	2 FAILED	800 N/R				82	252	13
		010	N/R	GN	1500 Ohms	100E-12 F	1 N/R	1 N/R	2 FAILED	1000 N/R				82	252	13
		MOT 1 Digital, Inverter, Buffer														CMOS
		098	0278	GN	1500 Ohms	150E-12 F	15 N/R	1 FAILED	4500 ALL LEADS(+)	GATE(-)				56	252	13
		098	0278	GN	1500 Ohms	150E-12 F	40 N/R	29 PASSED	4500 ALL LEADS(+)	GATE(-)				56	252	13
		099	0278	GN	1500 Ohms	150E-12 F	5 N/R	2 FAILED	6000 ALL LEADS(+)	GATE(-)				56	252	13
		099	0278	GN	1500 Ohms	150E-12 F	15 N/R	4 FAILED	6000 ALL LEADS(+)	GATE(-)				56	252	13
14049		099	0278	GN	1500 Ohms	150E-12 F	25 N/R	1 FAILED	6000 ALL LEADS(+)	GATE(-)				56	252	13
		099	0278	GN	1500 Ohms	150E-12 F	40 N/R	3 FAILED 15 PASSED	6000 ALL LEADS(+)	GATE(-)				56	252	13
		100	0278	GN	1500 Ohms	150E-12 F	5 N/R	4 FAILED	7000 ALL LEADS(+)	GATE(-)				56	252	13
		100	0278	GN	1500 Ohms	150E-12 F	15 N/R	10 FAILED	7000 ALL LEADS(+)	GATE(-)				56	252	13
		100	0278	GN	1500 Ohms	150E-12 F	25 N/R	5 FAILED	7000 ALL LEADS(+)	GATE(-)				56	252	13
		100	0278	GN	1500 Ohms	150E-12 F	40 N/R	9 FAILED 2 PASSED	7000 ALL LEADS(+)	GATE(-)				56	252	13
		101	0278	GN	1500 Ohms	150E-12 F	15 N/R	2 FAILED	7000 GATE(+)	ALL LEADS(-)				56	252	13
		101	0278	GN	1500 Ohms	150E-12 F	40 N/R	10 PASSED	700 GATE(+)	ALL LEADS(-)				56	252	13

RAC ESD Database

Part Number	Part ESD		Part		Description										Technology			
	Mfr	Class	Test	Type	Resistance	Capacitance	Pulses	Number	Date	Devices	Test	Result	Voltage	Pin Combination	Failure	Test	General	
14049	MOT	1	Digital, Inverter, Buffer															
					1500 Ohms	150E-12 F	5	N/R		5	FAILED	900	GATE(+)	ALL LEADS(-)	56	252	13	
					1500 Ohms	150E-12 F	40	N/R		2	FAILED	900	GATE(+)	ALL LEADS(-)	56	252	13	
					1500 Ohms	150E-12 F				5	PASSED	900	GATE(+)	ALL LEADS(-)	56	252	13	
					1500 Ohms	150E-12 F	5	N/R		10	FAILED	1100	GATE(+)	ALL LEADS(-)	56	252	13	
					1500 Ohms	150E-12 F	25	N/R		1	FAILED	1100	GATE(+)	ALL LEADS(-)	56	252	13	
					1500 Ohms	150E-12 F	40	N/R		1	PASSED	1100	GATE(+)	ALL LEADS(-)	56	252	13	
					1500 Ohms	100E-12 F	1	N/R		2	PASSED	400	N/R		82	252	13	
					1500 Ohms	100E-12 F	1	N/R		2	PASSED	600	N/R		82	252	13	
					1500 Ohms	100E-12 F	1	N/R		2	PASSED	800	N/R		82	252	13	
14049A					1500 Ohms	100E-12 F	1	N/R		2	FAILED	1000	N/R		82	252	13	
	MOT	1	Digital, Inverter, Buffer															
					1500 Ohms	150E-12 F	1	N/R		3	FAILED	790	INPUT(+)	VCC(-)	56	252	5	
					1500 Ohms	150E-12 F				10	FAILED	900	INPUT(+)	VCC(-)	56	252	5	
					1500 Ohms	150E-12 F				10	FAILED	980	INPUT(+)	VCC(-)	56	252	5	
					1500 Ohms	150E-12 F				2	PASSED	980	INPUT(+)	VCC(-)	56	252	5	
	14049B					1500 Ohms	150E-12 F	1	N/R		3	FAILED	860	GATE(+)	VSS(-)	56	252	5
		MOT	1	Digital, Inverter, Buffer														
						1500 Ohms	150E-12 F	1	N/R		10	FAILED	1030	GATE(+)	VSS(-)	56	252	5
						1500 Ohms	150E-12 F					PASSED	1150	GATE(+)	VSS(-)	56	252	5
					1500 Ohms	150E-12 F												
					1500 Ohms	150E-12 F												
					1500 Ohms	150E-12 F												
					1500 Ohms	150E-12 F												
					1500 Ohms	150E-12 F												
					1500 Ohms	150E-12 F												

RAC ESD Database

Part Number (Cont'd)	Part ESD		Part Description		Technology	
	Mfr	Class			Failure Criteria	General Remarks
14050	MOT	1	Digital, Inverter, Buffer		CMOS	
	Test	Test	Test	Test	Test	Test
	Source	Date	Type	Resistance	Capacitance	Pulses
116	0478	SS	1500 Ohms	150E-12 F	1	N/R
	Test	Test	Test	Test	Test	Test
	Source	Date	Type	Resistance	Capacitance	Pulses
093	0278	SS	1500 Ohms	150E-12 F	1	N/R
	Test	Test	Test	Test	Test	Test
	Source	Date	Type	Resistance	Capacitance	Pulses
007	N/R	GN	1500 Ohms	100E-12 F	1	N/R
008	N/R	GN	1500 Ohms	100E-12 F	1	N/R
009	N/R	GN	1500 Ohms	100E-12 F	1	N/R
010	N/R	GN	1500 Ohms	100E-12 F	1	N/R
14053B	MOT	1	Linear, Switch		CMOS	
	Test	Test	Test	Test	Test	Test
	Source	Date	Type	Resistance	Capacitance	Pulses
117	0478	SS	1500 Ohms	150E-12 F	1	N/R
	Test	Test	Test	Test	Test	Test
	Source	Date	Type	Resistance	Capacitance	Pulses
127	0278	SS	1500 Ohms	150E-12 F	1	N/R

RAC ESD Database

Part Number (Cont'd)	Part ESD		Part Description	Technology														
	Mfr Class	Description		CMOS														
				CMOS														
1408	MOT 1 Digital, Inverter, Buifer				Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Number Pulses	Date Code	Number Devices	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
	087	0278	SS	1500 Ohms	150E-12 F	1	N/R	1	N/R	2	PASSED	1720	VDD(+)	GATE(-)	56	252	5	
	091	0278	GN	1500 Ohms	150E-12 F	1	N/R	1	N/R	18	FAILED	1125	VDD(+)	GATE(-)	56	252	13	
										7	PASSED	1125	VDD(+)	GATE(-)	56	252	13	
	094	0278	SS	1500 Ohms	150E-12 F	1	N/R	1	N/R	3	FAILED	760	VDD(+)	GATE(-)	56	252	5	
										10	FAILED	1380	VDD(+)	GATE(-)	56	252	5	
										10	FAILED	1800	VDD(+)	GATE(-)	56	252	5	
										2	PASSED	1800	VDD(+)	GATE(-)	56	252	5	
	095	0278	GN	1500 Ohms	150E-12 F	1	N/R	1	N/R	25	PASSED	600	VDD(+)	GATE (-)	56	252	13	
	096	0278	GN	1500 Ohms	150E-12 F	1	N/R	1	N/R	7	FAILED	1125	VDD(+)	GATE(-)	56	252	13	
									18	PASSED	740	VDD(+)	GATE(-)	56	252	13		
097	0278	GN	1500 Ohms	150E-12 F	1	N/R	1	N/R	14	FAILED	920	VDD(+)	GATE(-)	56	252	13		
									11	PASSED	920	VDD(+)	GATE(-)	56	252	13		
N/R 3 Digital, Converter, A/D-D/A				Bipolar														
030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	5000	N/R	103	252	13			
									1	FAILED	5000	N/R	103	252	13			
									1	FAILED	5000	N/R	103	252	13			
fSC 2 Linear, Voltage Regulator				Bipolar														
390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1	N/R	1	PASSED	2000	S/R	105	247	11			
									1	PASSED	2000	S/R	105	247	11			
MOT 2 Digital, Decoder				CMOS														
006	0878	SS	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	3000	INPUT(1)(+) OUT(15)(-)	81	167	13			

RAC ESD Database

Part Number	(Cont'd)	Part ESD		Part Description	Technology
		Mfr	Class		
14511		MOT	2	Digital, Decoder	CMOS
		Test	Test	Test	Test
		Date	Type	Resistance	Capacitance
		006	0878	SS	1500 Ohms
				100E-12 F	
		Number	Date	Number	Date
		1	N/R	1	N/R
		Pulses	Code	Devices	Result
		1	N/R	1	FAILED
		3500	INPUT(3)(+)	OUT(13)(-)	
		2500	INPUT(1)(+)	OUT(15)(-)	
		Failure	Test	General	Remarks
		81	167	13	
		81	167	13	
145155		MOT	1	Digital, Transceiver	CMOS
393		0984	SS	1500 Ohms	100E-12 F
		1	N/R	2	FAILED
		600	6(INPUT)	5(VDD)	
		102	274	13	
14519		MOT	1	Digital, Gate	CMOS
007		N/R	GN	1500 Ohms	100E-12 F
		1	N/R	2	PASSED
		400	N/R		
		82	252	13	
008		N/R	GN	1500 Ohms	100E-12 F
		1	N/R	2	PASSED
		600	N/R		
		82	252	13	
009		N/R	GN	1500 Ohms	100E-12 F
		1	N/R	2	PASSED
		800	N/R		
		82	252	13	
010		N/R	GN	1500 Ohms	100E-12 F
		1	N/R	2	PASSED
		1000	N/R		
		82	252	13	
14524		MOT	2	Digital, Memory, PROM	CMOS
393		0385	SS	1500 Ohms	100E-12 F
		1	N/R	2	FAILED
		3000	15(INPUT)	16(VDD)	
		102	252	13	
		102	252	13	
14568		MOT	2	Digital, Counter/Divider	CMOS
393		0984	SS	1500 Ohms	100E-12 F
		1	N/R	1	FAILED
		3000	N/R		
		102	252	13	
1458		N/R	2	Linear, Operational Amplifier	Bipolar
030		N/R	N/R	1500 Ohms	100E-12 F
		1	N/R	1	FAILED
		2500	N/R		
		103	252	13	

RAC ESD Database

Part Number	Part ES0		Part Description		Number Date										Test		Voltage Pin		Combination		Technology	
	Mfr	Class	Test	Test	Type	Resistance	Capacitance	Pulses	Code	Devices	Result	Test	Test	Test	Test	Test	Test	Test	Test	General		
1458	N/R	N/R	2	Linear, Operational Amplifier	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	2500	N/R	103	252	13	Bipolar	General		
1463	N/R	3	Linear, Voltage Regulator	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	10000	N/R	103	252	13	Bipolar	General	13		
148	N/R	2	Linear, Operational Amplifier	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	2500	N/R	103	252	13	Bipolar	General	13		
148	FSC	2	Linear, Operational Amplifier	390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1	PASSED	2000	S/R	105	247	11	Bipolar	General	11		
1488	MOT	3	Digital, Line/Bus Driver	029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	5546	N/R	102	188	13	Bipolar	General	13		
1488	N/R	3	Digital, Line/Bus Driver	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	6000	N/R	103	252	13	Bipolar	General	13		
1489	MOT	3	Digital, Line/Bus Receiver	029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	4491	N/R	102	188	13	Bipolar	General	13		

RAC ESD Database

Part Number	Part ESD Mfr Class	Part Description	Technology									
			Bipolar									
1489	N/R	3	Digital, Line/Bus Receiver									
1490	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test
	Source	Date	Type	Resistance	Capacitance	Number Pulses	Date	Code	Devices	Result	Voltage	Pin Combination
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1 FAILED	6000	N/R
1496	N/R	N/R	1	Linear								
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1 FAILED	2000	N/R
	N/R	N/R	2	Linear								
1506	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1 FAILED	3000	N/R
	MOT	2	Digital, Converter, A/D-D/A									
	026	0281	SS	100 Ohms	200E-12 F	1	N/R	4	N/R	4 FAILED	520	INPUT(5)(+)GND(2)(-)
1508	N/R	3	Digital, Converter, A/D-D/A									
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1 FAILED	5000	N/R
	N/R	N/R	2	Linear, Voltage Regulator								
150K	436	1186	SS	1500 Ohms	100E-12 F	15	8631	5	N/R	5 FAILED	2500	INPUT TO OUTPUT
	MOT	1	Linear, Operational Amplifier									
	029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1 FAILED	2159	N/R
1530	N/R	N/R	1	Linear								
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1 FAILED	2000	N/R
	N/R	N/R	2	Linear, Voltage Regulator								

RAC ESD Database

Part Number (Cont'd)	Part ESD		Part Description		Technology	
	Mfr Class	Wtr Class	Description		Bipolar	
1530	MOT	N/R	1	Linear, Operational Amplifier		
	Test Date	Test Type	Test Resistance	Test Capacitance	Number Date	Test Result
029	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED
	Source	Date	Type	Resistance	Capacitance	Voltage Pin Combination
	029	N/R	N/R	1500 Ohms	100E-12 F	1887 N/R
						13
1533	MOT	N/R	1	Linear, Operational Amplifier		
	Test Date	Test Type	Test Resistance	Test Capacitance	Number Date	Test Result
029	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED
	Source	Date	Type	Resistance	Capacitance	Voltage Pin Combination
						1413 N/R
						13
155	N/R	N/R	3	Linear, Operational Amplifier		
	Test Date	Test Type	Test Resistance	Test Capacitance	Number Date	Test Result
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED
	Source	Date	Type	Resistance	Capacitance	Voltage Pin Combination
						6000 N/R
						13
1553D-8	HAR	N/R	2	Digital, Decoder		
	Test Date	Test Type	Test Resistance	Test Capacitance	Number Date	Test Result
436	N/R	1186 SS	1500 Ohms	100E-12 F	15 N/R	2 FAILED
	Source	Date	Type	Resistance	Capacitance	Voltage Pin Combination
						2500 INPUT TO OUTPUT
						5
436	N/R	1186 SS	1500 Ohms	100E-12 F	18 N/R	2 FAILED
	Source	Date	Type	Resistance	Capacitance	Voltage Pin Combination
						4000 INPUT TO COMMON
						5
1558	N/R	N/R	2	Linear, Operational Amplifier		
	Test Date	Test Type	Test Resistance	Test Capacitance	Number Date	Test Result
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED
	Source	Date	Type	Resistance	Capacitance	Voltage Pin Combination
						2500 N/R
						13
1559	N/R	N/R	3	Linear, Operational Amplifier		
	Test Date	Test Type	Test Resistance	Test Capacitance	Number Date	Test Result
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED
	Source	Date	Type	Resistance	Capacitance	Voltage Pin Combination
						6000 N/R
						13
1559	SIG	N/R	2	Linear, Operational Amplifier		
	Test Date	Test Type	Test Resistance	Test Capacitance	Number Date	Test Result
029	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED
	Source	Date	Type	Resistance	Capacitance	Voltage Pin Combination
						3945 N/R
						13

RAC ESD Database

Part Number (Cont'd)	Part ESD		Part	Description				Technology							
	Mfr	Class		Test	Type	Resistance	Capacitance	Pulses	Code	Number	Test	Result	Pin Combination	Failure Criteria	Test Remarks
155	AMD	2	Linear, Operational Amplifier		100 Ohms	200E-12 F	1	N/R	4	FAILED	636 INPUT(2)(+) V(-)(4)(-)	33	285	13	
1563	N/R	2	Linear, Voltage Regulator		1500 Ohms	100E-12 F	1	N/R	1	FAILED	3000 N/R	103	252	13	
156A	N/R	3	Linear, Operational Amplifier		1500 Ohms	100E-12 F	1	N/R	1	FAILED	6000 N/R	103	252	13	
1590	N/R	3	Linear, Operational Amplifier		1500 Ohms	100E-12 F	1	N/R	1	FAILED	7000 N/R	103	252	13	
1592	N/R	1	Linear		1500 Ohms	100E-12 F	1	N/R	1	FAILED	2000 N/R	103	252	13	
15946	TEX	N	Digital, Gate		1500 Ohms	100E-12 F	1	N/R	1	FAILED	342741 N/R	102	188	13	
1596	N/R	2	Linear		1500 Ohms	100E-12 F	1	N/R	1	FAILED	3000 N/R	103	252	13	
1673	MOT	3	Digital, Counter/Divider		1500 Ohms	100E-12 F	1	N/R	1	FAILED	11934 N/R	102	189	13	

RAC ESD Database

Part		ESD		Part		Technology									
Number		Class		Description		DTL									
SIG		3		Digital, Gate											
Test		Test		Test		Test		Test		Test		Test		General	
Source		Date		Type		Resistance		Capacitance		Pulses		Code		Remarks	
029		N/R		N/R		1500 Ohms		100E-12 F		1 N/R		1 N/R		102	
														188	
														13	
1912		N/R	1	Digital, Processing Unit, Central										CMOS	
030		N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED	1000 N/R					103	252	13
1922		RCA	2	Digital, Memory, RAM, Static										CMOS	
383		N/R	SS	1500 Ohms	100E-12 F	1 N/R	1 FAILED	2018 OUT.(8)(+) APTT(-)					49	188	8
1952		N/R	1	Digital, Transceiver, Input-Output Port										CMOS	
030		N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED	1000 N/R					103	252	13
													103	252	13
192		SIX	3	Linear, Switch										JFET	
026		0281 SS	100 Ohms	200E-12 F	1 N/R	4 FAILED	750 V(-)(14)(+) INPUT(-)						39	285	13
192		N/R	2	Linear										BIFET	
030		N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED	2500 N/R					103	252	13
2001		TEX	3	Digital, Register, Shift										TTL	
029		N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED	7583 N/R					102	189	13
201		SIX	1	Linear, Switch										CMOS	
436		1186 SS	1500 Ohms	100E-12 F	18 N/R	5 PASSED	4000 N/R						5	252	3

RAC ESD Database

Part Number (Cont'd)	Part ESD		Part Description	Technology											
	Mfr	Class		Failure Criteria	Test Remarks	General Remarks									
201	SIX	1	Linear, Switch	CMOS											
	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test
	Source	Date	Type	Resistance	Capacitance	Pulses	Code	Devices	Result	Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks	
	436	1186	SS	1500 Ohms	100E-12 F	5	N/R	5	FAILED	600	INPUT TO OUTPUT	5	252	3	
	436	1186	SS	1500 Ohms	100E-12 F	18	N/R	5	PASSED	4000	N/R	5	252	3	
	436	1186	SS	1500 Ohms	100E-12 F	3	N/R	5	FAILED	400	INPUT TO OUTPUT	5	252	3	
201	SIL	1	Linear, Switch	CMOS											
	436	1186	SS	1500 Ohms	100E-12 F	5	N/R	5	FAILED	600	INPUT TO OUTPUT	5	252	3	
2051	N/R	1	Digital, Memory, EAROM	NMOS											
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000	N/R	103	252	13	
201D	MON	1	Digital	TTL											
	436	1186	SS	1500 Ohms	100E-12 F	7	8649	1	FAILED	800	INPUT TO OUTPUT	5	252	3	
2102	INT	1	Digital, Memory, RAM, Stat c	NMOS											
	041	V/R	SS	1000 Ohms	200E-12 F	1	N/R	1	FAILED	700	N/R	1	252	20	
						1		1	FAILED	2000	N/R	1	252	20	
	045	N/R	SS	1000 Ohms	200E-12 F	4	N/R	3	FAILED	1400	N/R	1	15	13	
	046	N/R	GN	1000 Ohms	200E-12 F	200	N/R	1	PASSED	500	N/R	1	252	13	
	047	N/R	GN	1000 Ohms	200E-12 F	25	N/R	1	FAILED	1000	N/R	1	252	13	
	026	0281	SS	100 Ohms	200E-12 F	1	N/R	4	FAILED	535	INPUT(1)(+) GND(9)(-)	32	285	13	

RAC ESD Database

Part Number	Part	Part ESD		Description		Technology																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		Mfr	Class	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test

RAC ESD Database

Part Number	Part ESD		Part		Description		Technology	
	Mfr	Class	Test	Type	Resistance	Capacitance	Test	General
2255	MOT	1	MOI	1	Digital, Gate			CMOS
	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Code	Number	Devices
	029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1
								268 N/R
								1 FAILED
								252
								13
2401	N/R	1	SS	1500 Ohms	117E-12 F	30	N/R	5
								750 N/R
								252
								13
2516	N/R	1	SS	1500 Ohms	100E-12 F	1	N/R	1
								1000 N/R
								103
								252
								13
384	N/R	SS	1000 Ohms	200E-12 F	1	N/R	1	N/R
								300 EACH PIN(+)
								52
								140
								24
								700 EACH PIN(+)
								52
								117
								24
2520HA	HAR	1	Linear, Operational Amplifier					Bipolar
								5
								229
								3
2622	HAR	1	Linear, Operational Amplifier					Bipolar
								103
								252
								13
2622	ISL	1	Linear, Operational Amplifier					Bipolar
								103
								252
								13
2622	N/R	2	Linear, Operational Amplifier					Bipolar
								103
								252
								13

RAC ESD Database

Part Number	Part ESD		Part		Description		Technology	
	Mfr	Class	Test	Test	Test	Test	Failure Criteria	General Remarks
2650	N/R	N/R	1	Linear, Operational Amplifier			Bipolar	
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Test Number	Test Voltage
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1500 N/R
							1	FAILED
26LS31	N/R	N/R	1	Digital, Line/Bus Driver				
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1500 N/R
							1	FAILED
26LS31	NSC	1186	SS	1500 Ohms	100E-12 F	5	N/R	600 INPUT TO COMMON
	436						1	FAILED
26LS31	AMD	1186	SS	1500 Ohms	100E-12 F	3	N/R	400 INPUT TO OUTPUT
	436						2	FAILED
26LS32	N/R	N/R	N/A	1500 Ohms	100E-12 F	1	N/R	1500 N/R
	030						1	FAILED
26LS32	AMD	1186	SS	1500 Ohms	100E-12 F	4	N/R	500 INPUT TO COMMON
	436						2	FAILED
26LS33	AMD	1186	SS	1500 Ohms	100E-12 F	4	8420	500 INPUT TO OUTPUT & COMMON
	436						2	FAILED
	436						2	FAILED

RAC ESD Database

Part Number	(Cont'd)	Part ESD		Part Description	Technology	
		Mfr Class	1		LS TTL	
26LS33		NSC	1	Digital, Line/Bus Receiver		
Test Test Test Test Test Test Test						
Source	Date	Type	Resistance	Capacitance	Pulses	Number
436	1186	SS	1500 Ohms	100E-12 F	14	N/R
					1	FAILED
					2000	INPUT TO COMMON
2702		N/R	1	Linear, Voltage Reference		
030		N/R	N/R	1500 Ohms	100E-12 F	1 N/R
					1	FAILED
					1000	N/R
2708		N/R	1	Digital, Memory, EPROM		
030		N/R	N/R	1500 Ohms	100E-12 F	1 N/R
					1	FAILED
					1000	N/R
384		N/R	SS	1000 Ohms	200E-12 F	1 N/R
					1	FAILED
					800	EACH PIN(+)
					400	EACH PIN(+)
					1500	EACH PIN(+)
					500	EACH PIN(+)
27128		INT	2	Digital, Memory, EAROM		
393		0984	SS	1500 Ohms	100E-12 F	1 N/R
					1	FAILED
					3500	N/R
429		N/R	GN	0 Ohms	50E-12 F	3 N/R
					10	PASSED
					600	N/R
2716		N/R	1	Digital, Memory, EPROM		
030		N/R	N/R	1500 Ohms	100E-12 F	1 N/R
					1	FAILED
					1000	N/R
384		N/R	SS	1000 Ohms	200E-12 F	1 N/R
					1	FAILED
					600	EACH PIN(+)
					3000	EACH PIN(+)
27256		INT	1	Digital, Memory, EPROM		
428		N/R	GN	1500 Ohms	100E-12 F	5 N/R
					10	PASSED
					1200	N/R

RAC ESD Database

Part Number	Part ESD		Part Description	Technology	Failure Test General			
	Mfr	Class			Criteria	Test Remarks	Remarks	
27256	INT	1	Digital, Memory, EPROM	HMOS	13	237	13	
	Test	Test	Test					
	Source	Date	Type	Resistance	Capacitance	Number	Date	Test
429	N/R	"	0	Ohms	50E-12 F	3	N/R	10
								600 N/R
2732	INT	2	Digital, Memory, EPROM	NMOS	102	252	13	
393	0383	SS	1500 Ohms	100E-12 F	1	FAILED	2500 N/R	
2732	N/R	1	Digital, Memory, EPROM	NMOS				
384	N/R	SS	1000 Ohms	200E-12 F	1	FAILED	1500 EACH PIN(+)	24
					1	FAILED	500 EACH PIN(+)	24
27512	INT	1	Digital, Memory, EPROM	HMOS	13	252	13	
428	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1200 N/R	
429	N/R	GN	0 Ohms	50E-12 F	3	N/R	600 N/R	
2764	INT	1	Digital, Memory, EPROM	HMOS				
428	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1200 N/R	13
429	N/R	GN	0 Ohms	50E-12 F	3	N/R	600 N/R	13
27513	N/R	1	Digital, Memory, PROM	STTL	103	252	13	
030	N/R	N/R	1500 Ohms	100E-12 F	1	FAILED	1000 N/R	
27519C	N/R	1	Digital, Memory, PROM	STTL				
030	N/R	N/R	1500 Ohms	100E-12 F	1	FAILED	1000 N/R	13

RAC ESD Database

Part Number	Part ESD		Part		Technology	
	Mfr	Class	Description			
27S20	N/R	1	Digital, Memory, PROM		STTL	
	Test Date	Test Type	Test Resistance	Capacitance	Test Voltage	Test Result
026	0281	SS	100 Ohms	200E-12 F	263 N/R	4 FAILED
	Source	Device	Code	Pulses	Number	General Remarks
	026	0281	SS	100	200E-12 F	31 285 13
27S291	AMD	1	Digital, Memory, PROM		STTL	
393	0984	SS	1500 Ohms	100E-12 F	500 5(INPUT) 12(GND)	102 252 13
28C256	SEQ	2	Digital, Memory, PROM		MOS	
436	1186	SS	1500 Ohms	100E-12 F	3000 INPUT TO OUTPUT	5 252 3
					3000 INPUT TO COMMON	5 252 3
2901	AMD	1	Digital, Processing Unit, Central		LSTTL	
383	N/R	SS	1500 Ohms	100E-12 F	774 CP(+) APTT(-)	49 188 8
					183 F=0(+) APTT(-)	49 188 8
					57286 VCC(+) APTT(-)	49 188 8
2901	N/R	1	Digital, Processing Unit, Central		LSTTL	
030	N/R	N/R	1500 Ohms	100E-12 F	1500 N/R	103 252 13
2909	N/R	1	Digital, Processing Unit, Central		STTL	
030	N/R	N/R	1500 Ohms	100E-12 F	1500 N/R	103 252 13
2910	N/R	1	Digital, Processing Unit, Central		STTL	
030	N/R	N/R	1500 Ohms	100E-12 F	1500 N/R	103 252 13

RAC ESD Database

Part Number	Part ESD	Part	Description		Technology									
			Mfg	Class	LSI/L									
2930	N/R	1	Digital, Processing Unit, Central											
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Number Pulses	Date Code	Number Devices	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13
3001		INT	1	Digital								Bipolar		
	428	N/R	GN	1500 Ohms	100E-12 F	5	N/R	10	FAILED	412	PINS 23 AND 24	13	252	13
3002		INT	1	Digital								Bipolar		
	428	N/R	GN	1500 Ohms	100E-12 F	5	N/R	10	FAILED	425	PINS 16,24,26, AND 27	13	252	13
3003		INT	1	Digital								Bipolar		
	428	N/R	GN	1500 Ohms	100E-12 F	5	N/R	10	FAILED	512	PINS 2 AND 17	13	252	13
301		N/R	1	Linear, Operational Amplifier								Bipolar		
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1250	N/R	103	252	13
301		MOT	N	Linear, Operational Amplifier								Bipolar		
	029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	82092	N/R	102	188	13
3015		RCA	1	Linear, Operational Amplifier								Bipolar		
	029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1958	N/R	102	189	13
302		NSC	3	Linear, Operational Amplifier								Bipolar		
	029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	10899	N/R	102	188	13

RAC ESD Database

Part Number	Part ESD Part		Description		Technology	
	Mfr	Class	Test	Test	Failure Test	General
304	MOT	3	Digital, Line/Bus Driver		ECI	
	Test	Test	Test	Test	Test	Test
	Source	Date	Type	Resistance	Capacitance	Pin Combination
029	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED
						13991 N/R
						102 188 13
308	MOT	3	Linear, Operational Amplifier		Bipolar	
029	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED
						6257 N/R
						102 188 13
303	N/R	1	Linear, Operational Amplifier		Bipolar	
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED
						1250 N/R
						103 252 13
						103 252 13
309	N/R	3	Linear, Voltage Regulator		Bipolar	
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED
						10000 N/R
						103 252 13
						103 252 13
3101	INT	3	Digital, Memory, RAM, Static		STTL	
029	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED
						8060 N/R
						102 189 13
311	FSC	1	Linear, Comparator		Bipolar	
383	N/R	SS	1500 Ohms	100E-12 F	1 N/R	1 FAILED
						295 IN.(+) APTT(-)
						1 FAILED
						23485 CLOCK(+) APTT(-)
						49 188 8
						49 188 8
311	N/R	3	Linear, Comparator		Bipolar	
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED
						11000 N/R
						103 252 13

RAC ESD Database

Part Number	(Cont'd)	Part ESD		Part Description	Technology										
		Mfr	Class			Test Date	Test Type	Resistance	Capacitance	Pulses	Code	Number	Date	Devices	Test Result
311		N/R	3	Linear, Comparator	Bipolar	030	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED
															10000 N/R
3158		HON	1	Linear, Comparator	Bipolar										
		436	0688 SS	1500 Ohms	100E-12 F					16	N/R	1	FAILED	3000 COMMON TO OUTPUT	5 252 3
										1	N/R	1	FAILED	3000 INPUT TO COMMON	5 252 3
		436	1186 SS	1500 Ohms	100E-12 F					9	N/R	1	FAILED	1000 VCC TO GND	5 252 3
		436	1186 SS	1500 Ohms	100E-12 F					11	N/R	1	FAILED	1400 VCC TO GND	5 252 3
317		MOT	3	Linear, Voltage Regulator	Bipolar										
		029	N/R	1500 Ohms	100E-12 F					1	N/R	1	FAILED	6253 N/R	102 188 13
317		N/R	3	Linear, Voltage Regulator	Bipolar										
		030	N/R	1500 Ohms	100E-12 F					1	N/R	1	FAILED	10000 N/R	103 252 13
318		N/R	3	Linear, Operational Amplifier	Bipolar										
		030	N/R	1500 Ohms	100E-12 F					1	N/R	1	FAILED	11000 N/R	103 252 12
319		N/R	1	Linear, Comparator	Bipolar										
		030	N/R	1500 Ohms	100E-12 F					1	N/R	1	FAILED	1500 N/R	103 252 13
320		N/R	3	Linear, Voltage Regulator	Bipolar										
		030	N/R	1500 Ohms	100E-12 F					1	N/R	1	FAILED	10000 N/R	103 252 13

84

Part Number	Part ESD Class	Part Description	Test Results										Technology		
			Mfr N/R	Type	Resistance	Capacitance	Pulses	Date Code	Number Devices	Test Result	Voltage Pin Combination	Failure Criteria	Test Remarks	General Remarks	
320	N/R	3 Linear, Voltage Regulator	Source	N/R	1500 Ohms	100E-12 F	1	N/R	1 FAILED	10000 P/R	103	252	13		
			Q30	N/R	N/R	1500 Ohms	10000 N/R	1	FAILED	10000 N/R	103	252	13		
				N/R	N/R	1500 Ohms	10000 N/R	1	FAILED	10000 N/R	103	252	13		
324	N/R	1 Linear, Operational Amplifier	Q30	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1 FAILED	1500 N/R	103	252	13	
				N/R	N/R	1500 Ohms	100E-12 F	1	FAILED	1500 N/R	103	252	13		
331	HYB	1 Digital, Converter, A/D-D/A	Q05	0980 SS	1500 Ohms	10CE-12 F	1	N/R	1 FAILED	500 INPUT(6)(+) VSS(3)(-)	04	79	13		
				0980 SS	1500 Ohms	10CE-12 F	1	N/R	1 FAILED	800 INPUT(4)(+) VSS(3)(-)	104	96	13		
				0980 SS	1500 Ohms	10CE-12 F	1	N/R	1 FAILED	500 INPUT(8)(+) VSS(3)(-)	104	89	13		
				0980 SS	1500 Ohms	10CE-12 F	1	N/R	1 FAILED	300 INPUT(7)(+) VSS(3)(-)	104	183	13		
				0980 SS	1500 Ohms	10CE-12 F	1	N/R	1 FAILED	500 INPUT(+)(+) OUTPUT(-)	104	95	13		
				0980 SS	1500 Ohms	10CE-12 F	1	N/R	1 FAILED	800 INPUT(+)(+) VSS(3)(-)	104	96	13		
334	N/F	1 Linear, Comparator	Q30	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1 FAILED	200G N/R	103	252	13	
				N/R	N/R	1500 Ohms	100E-12 F	1	FAILED	200G N/R	103	252	13		
342	N/F	3 Linear, Voltage Regulator	Q30	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1 FAILED	10000 N/R	103	252	13	
				N/R	N/R	1500 Ohms	10000 N/R	1	FAILED	10000 N/R	103	252	13		
				N/R	N/R	1500 Ohms	10000 N/R	1	FAILED	10000 N/R	103	252	13		
				N/R	N/R	1500 Ohms	10000 N/R	1	FAILED	10000 N/R	103	252	13		
3470	GI	1 Digital, Memory, EATOM	Q30	N/R	SS	1500 Ohms	100E-12 F	1	N/R	1 FAILED	81 VCC(+)	APTT(-)	49	188	8
				N/R	SS	1500 Ohms	100E-12 F	1	N/R	1 FAILED	81 VCC(+)	APTT(-)	49	188	8

RAC ESD Database

Part Number	(Cont'd)	Part ESD		Part Description	Technology													
		Mfr	Class		CMOS													
3400		GI	1	Digital, Memory, EARM														
					Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Number Code	Date Devices	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
					383	N/R	SS	1500 Ohms	100E-12 F	1	N/R	1	FAILED	144 VDD(+)	APTT(-)	49	188	8
												1	FAILED	14024 A5(9)(+)	APTT(-)	49	188	8
34001					MOT		1	Linear, Operational Amplifier								BIFET		
					027	N/R	GN	1500 Ohms	100E-12 F	1	N/R	8	FAILED	1000 N/R		47	252	12
												7	PASSED	1000 N/R		47	252	12
34001					FSC		1	Linear, Operational Amplifier								BIFET		
					123	0478	SS	1500 Ohms	150E-12 F	1	N/R	10	FAILED	1800 INPUT B(+)	INPUT A(-)	56	252	5
												10	FAILED	1450 INPUT B(+)	INPUT A(-)	56	252	5
												3	FAILED	1150 INPUT B(+)	INPUT A(-)	56	252	5
												2	PASSED	1800 INPUT B(+)	INPUT A(-)	56	252	5
3403					MOT		1	Linear, Operational Amplifier								Bipolar		
					027	N/R	GN	1500 Ohms	100E-12 F	1	N/R	6	FAILED	1000 N/R		47	252	12
												9	PASSED	1000 N/R		47	252	12
340498					FSC		1	Digital, Inverter, Buffer								CMOS		
					125	0478	SS	1500 Ohms	150E-12 F	1	N/R	3	FAILED	1100 INPUT(+)	OUTPUT(-)	56	252	5
												10	FAILED	1280 INPUT(+)	OUTPUT(-)	56	252	5
												10	FAILED	1480 INPUT(+)	OUTPUT(-)	56	252	5
												2	PASSED	1480 INPUT(+)	OUTPUT(-)	56	252	5
34050941-001					HYC		1	Digital, Converter, A/D-D/A								Bipolar		
					436	1186	SS	1500 Ohms	100E-12 F	14	N/R	1	FAILED	2000 INPUT-GND AND	GND-OUTPUT	5	252	3

RAC ESD Database

Part Number	Part	Part ESD		Test		Test		Test		Test		Test		Test		Technology	
		Mfr	Class	Date	Type	Resistance	Capacitance	Pulses	Code	Devices	Result	Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks	
34054597		HON	1	Linear, Operational Amplifier												Bipolar	
34054597-001		HON	1	Linear, Operational Amplifier												Bipolar	
436		1186	SS	1500 Ohms	100E-12 F	12	N/R	1	FAILED	1500 INPUT TO GND	5	252	3				
34056230-001		LTC	3	Linear, Operational Amplifier												Bipolar	
436		1186	SS	1500 Ohms	100E-12 F	18	N/R	1	PASSED	4000 N/R	5	252	3				
34069508-100		IDT	1	Digital, Memory, RAM, Static												CMOS	
436		1186	SS	1500 Ohms	100E-12 F	5	8641	1	FAILED	600 INPUT AND COMMON TO GND	5	252	3				
34371		HAR	1	Digital, Memory, PROM												Bipolar	
392		0886	SS	1500 Ohms	100E-12 F	1	N/R	3	FAILED	1000 EACH PIN TO GND & VCC	19	154	13				
344		NSC	1	Linear, Operational Amplifier												Bipolar	
052		0681	SS	0 Ohms	100E-12 F	1	N/R	1	FAILED	400 EACH PIN	51	171	13				
053		0681	SS	1500 Ohms	100E-12 F	1	N/R	2	PASSED	1500 EACH PIN	51	171	13				
420		0581	SS	0 Ohms	125E-12 F	12	N/R	1	FAILED	600 N/R	18	170	13				
348		N/R	2	Linear, Operational Amplifier												Bipolar	
030		N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	2500 N/R	103	252	13				

RAC ESD Database

Part Number	Part	Part ESD		Part Description	Technology											
		Mfr	Class		ECL											
351		MOT	1	Digital, Gate												
		Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test
		Source	Date	Type	Resistance	Capacitance	Number	Date	Code	Pulses	Devices	Pin	Combination	Failure	Test	General
		029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	1576 N/R	102	189	13
355		N/R	3	Linear, Operational Amplifier										BIFET		
		030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	6000	N/R		103	252	13
356		N/R	3	Linear, Operational Amplifier										BIFET		
		030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	6000	N/R		103	252	13
														103	252	13
357		N/R	3	Linear, Operational Amplifier										BIFET		
		030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	6000	N/R		103	252	13
3600		TEX	3	Digital, Converter, A/D-D/A										Bipolar		
		029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	12930	N/R		102	188	13
373		VAR	2	Digital, Latch										Bipolar		
		424	1083	SS	1500 Ohms	100E-12 F	7	N/R	2	FAILED	1000	PINS 1 AND 11		46	149	13
		424	1083	SS	1500 Ohms	100E-12 F	9	N/R	8	FAILED	1250	PINS 1 AND 11		46	149	13
		424	1083	SS	1500 Ohms	100E-12 F	12	N/R	4	FAILED	1500	PINS 1 AND 11		46	149	13
		423	1083	SS	0	Ohms 0	F	6	N/R	2	FAILED	750	PINS 1 AND 11	46	252	4

RAC ESD Database

Part Number	Part	Part ESD		Part Description		Technology																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
		Mfr	Class	VAR	2	Digital, Latch	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test

RAC ESD Database

[illegible]

RAC ESD Database

Part Number	Part ESD		Part Description		Technology									
	Mfr Class	RCA	1	Digital, Gate	CMOS									
Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test	Pulses	Code	Number	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
104	0478	SS	1500 Ohms	150E-12 F		1	N/R	10	FAILED	780	INPUT B(+) INPUT A(-)	56	252	5
								10	FAILED	980	INPUT B(+) INPUT A(-)	56	252	5
								2	PASSED	980	INPUT B(+) INPUT A(-)	56	252	5
293	N/R	GN	1500 Ohms	100E-12 F		200	N/R	1	PASSED	750	VDD(14)(+) IN.(1)(-)	88	252	13
294	N/R	GN	1500 Ohms	100E-12 F		200	N/R	1	PASSED	775	VDD(14)(+) IN.(1)(-)	88	252	13
295	N/R	GN	1500 Ohms	100E-12 F		200	N/R	2	PASSED	790	VDD(14)(+) IN.(1)(-)	88	252	13
296	N/R	GN	1500 Ohms	100E-12 F		200	N/R	1	PASSED	795	VDD(14)(+) IN.(1)(-)	88	252	13
297	N/R	GN	1500 Ohms	100E-12 F		1	N/R	2	FAILED	800	VDD(14)(+) IN.(1)(-)	88	252	13
297	N/R	GN	1500 Ohms	100E-12 F		500	N/R	5	PASSED	800	VDD(14)(+) IN.(1)(-)	88	252	13
297	N/R	GN	1500 Ohms	100E-12 F		300	N/R	1	FAILED	800	VDD(14)(+) IN.(1)(-)	88	252	13
297	N/R	GN	1500 Ohms	100E-12 F		10	N/R	1	FAILED	800	VDD(14)(+) IN.(1)(-)	88	252	13
297	N/R	GN	1500 Ohms	100E-12 F		80	N/R	1	FAILED	800	VDD(14)(+) IN.(1)(-)	88	252	13
297	N/R	GN	1500 Ohms	100E-12 F		200	N/R	1	PASSED	800	VDD(14)(+) IN.(1)(-)	88	252	13
297	N/R	GN	1500 Ohms	100E-12 F		1	N/R	2	FAILED	800	VDD(14)(+) IN.(1)(-)	51	252	13
299	N/R	GN	1500 Ohms	100E-12 F		1	N/R	1	FAILED	805	VDD(14)(+) IN.(1)(-)	88	252	13
300	N/R	GN	1500 Ohms	100E-12 F		1	N/R	1	FAILED	810	VDD(14)(+) IN.(1)(-)	88	252	13
301	N/R	GN	1500 Ohms	100E-12 F		200	N/R	1	PASSED	815	VDD(14)(+) IN.(1)(-)	88	252	13
302	N/R	GN	1500 Ohms	100E-12 F		200	N/R	1	PASSED	825	VDD(14)(+) IN.(1)(-)	88	252	13

RAC ESD Database

Part Number 4001A	Part ESD		Part		Description										Technology		
	Mfr	Class	RCA		1		Digital, Gate								CMOS		
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Test Number	Test Date	Test Code	Test Devices	Test Result	Test Voltage	Test Pin Combination	Failure Criteria	Test Remarks	General Remarks	
303	N/R	N/R	GN	1500 Ohms	100E-12 F	200	N/R	200	N/R	1	PASSED	830	VDD(14)(+)	IN.(1)(-)	88	252	13
304	N/R	N/R	GN	1500 Ohms	100E-12 F	500	N/R	500	N/R	3	PASSED	833	VDD(14)(+)	IN.(1)(-)	88	252	13
304	N/R	N/R	GN	1500 Ohms	100E-12 F	1	N/R	1	N/R	5	FAILED	833	VDD(14)(+)	IN.(1)(-)	88	252	13
304	N/R	N/R	GN	1500 Ohms	100E-12 F	2	N/R	2	N/R	1	FAILED	833	VDD(14)(+)	IN.(1)(-)	88	252	13
304	N/R	N/R	GN	1500 Ohms	100E-12 F	4	N/R	4	N/R	1	FAILED	833	VDD(14)(+)	IN.(1)(-)	88	252	13
305	N/R	N/R	GN	1500 Ohms	100E-12 F	200	N/R	200	N/R	1	PASSED	840	VDD(14)(+)	IN.(1)(-)	88	252	13
306	N/R	N/R	GN	1500 Ohms	100E-12 F	200	N/R	200	N/R	1	PASSED	845	VDD(14)(+)	IN.(1)(-)	88	252	13
307	N/R	N/R	GN	1500 Ohms	100E-12 F	1	N/R	1	N/R	2	FAILED	850	VDD(14)(+)	IN.(1)(-)	88	252	13
307	N/R	N/R	GN	1500 Ohms	100E-12 F	200	N/R	200	N/R	3	PASSED	850	VDD(14)(+)	IN.(1)(-)	88	252	13
307	N/R	N/R	GN	1500 Ohms	100E-12 F	2	N/R	2	N/R	1	FAILED	850	VDD(14)(+)	IN.(1)(-)	88	252	13
307	N/R	N/R	GN	1500 Ohms	100E-12 F	200	N/R	200	N/R	1	PASSED	850	VDD(14)(+)	IN.(1)(-)	88	252	13
308	N/R	N/R	GN	1500 Ohms	100E-12 F	1	N/R	1	N/R	6	FAILED	865	VDD(14)(+)	IN.(1)(-)	88	252	13
308	N/R	N/R	GN	1500 Ohms	100E-12 F	200	N/R	200	N/R	3	PASSED	865	VDD(14)(+)	IN.(1)(-)	88	252	13
308	N/R	N/R	GN	1500 Ohms	100E-12 F	1	N/R	1	N/R	2	FAILED	865	VDD(14)(+)	IN.(1)(-)	88	252	13
										8	PASSED	865	VDD(14)(+)	IN.(1)(-)	88	252	13
309	N/R	N/R	GN	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	870	VDD(14)(+)	IN.(1)(-)	88	252	13
310	N/R	N/R	GN	1500 Ohms	100E-12 F	4	N/R	4	N/R	1	FAILED	875	VDD(14)(+)	IN.(1)(-)	88	252	13
310	N/R	N/R	GN	1500 Ohms	100E-12 F	200	N/R	200	N/R	1	PASSED	875	VDD(14)(+)	IN.(1)(-)	88	252	13

RAC ESD Database

Part Number (Cont'd)	Part ESD		Part Description	Technology												
	Mfr	Class		CMOS												
				Digital, Gate												
4001A	Test	Test Date	Test Type	Resistance	Capacitance	Test	Number	Date	Devices	Test	Test Result	Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
	311	N/R	N/R	GN	1500 Ohms	100E-12 F	25	N/R	1	FAILED	880	VDD(14)(+)	IN.(1)(-)	88	252	13
	312	N/R	N/R	GN	1500 Ohms	100E-12 F	200	N/R	1	PASSED	890	VDD(14)(+)	IN.(1)(-)	88	252	13
	313	N/R	N/R	GN	1500 Ohms	100E-12 F	1	N/R	7	FAILED	898	VDD(14)(+)	IN.(1)(-)	88	252	13
	313	N/R	N/R	GN	1500 Ohms	100E-12 F	2	N/R	1	FAILED	898	VDD(14)(+)	IN.(1)(-)	88	252	13
	313	N/R	N/R	GN	1500 Ohms	100E-12 F	200	N/R	2	PASSED	898	VDD(14)(+)	IN.(1)(-)	88	252	13
	313	N/R	N/R	GN	1500 Ohms	100E-12 F	1	N/R	6	FAILED	898	VDD(14)(+)	IN.(1)(-)	88	252	13
									4	PASSED	898	VDD(14)(+)	IN.(1)(-)	88	252	13
	314	N/R	N/R	GN	1500 Ohms	100E-12 F	1	N/R	1	FAILED	900	VDD(14)(+)	IN.(1)(-)	88	252	13
	314	N/R	N/R	GN	1500 Ohms	100E-12 F	200	N/R	1	PASSED	900	VDD(14)(+)	IN.(1)(-)	88	252	13
	315	N/R	N/R	GN	1500 Ohms	100E-12 F	200	N/R	1	PASSED	910	VDD(14)(+)	IN.(1)(-)	88	252	13
	316	N/R	N/R	GN	1500 Ohms	100E-12 F	3	N/R	1	FAILED	915	VDD(14)(+)	IN.(1)(-)	88	252	13
	316	N/R	N/R	GN	1500 Ohms	100E-12 F	10	N/R	1	FAILED	915	VDD(14)(+)	IN.(1)(-)	88	252	13
	316	N/R	N/R	GN	1500 Ohms	100E-12 F	200	N/R	3	PASSED	915	VDD(14)(+)	IN.(1)(-)	88	252	13
	317	N/R	N/R	GN	1500 Ohms	100E-12 F	1	N/R	3	FAILED	920	VDD(14)(+)	IN.(1)(-)	88	252	13
	317	N/R	N/R	GN	1500 Ohms	100E-12 F	200	N/R	1	PASSED	920	VDD(14)(+)	IN.(1)(-)	88	252	13
	318	N/R	N/R	GN	1500 Ohms	100E-12 F	1	N/R	13	FAILED	930	VDD(14)(+)	IN.(1)(-)	88	252	13
	318	N/R	N/R	GN	1500 Ohms	100E-12 F	200	N/R	1	PASSED	930	VDD(14)(+)	IN.(1)(-)	88	252	13
	326	N/R	N/R	GN	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1250	VDD(14)(+)	IN.(1)(-)	88	252	13

CMOS	10	10	10	10	10	10
------	----	----	----	----	----	----

93

RAC ESD Database

Part Number	Part ESD		Part		Technology			
	Number (Cont'd)	Mfr Class	Description					
4001A	N/R	1	Digital, Gate		CMOS			
	Test	Test	Test	Test	Test	General		
	Source	Date	Type	Resistance	Capacitance	Criteria	Remarks	Remarks
151	N/R	N/R	SS	500 Ohms	N/R	1 FAILED	1750 N/R	102 185 13
						1 FAILED	2000 N/R	102 185 13
152	N/R	N/R	SS	500 Ohms	N/R	1 FAILED	1000 N/R	102 185 13
						1 FAILED	1500 N/R	102 185 13
153	N/R	N/R	SS	500 Ohms	100E-12 F	1 FAILED	700 N/R	102 185 13
						1 FAILED	950 N/R	102 185 13
154	N/R	N/R	SS	500 Ohms	250E-12 F	1 FAILED	600 N/R	102 185 13
						1 FAILED	700 N/R	102 185 13
155	N/R	N/R	SS	500 Ohms	500E-12 F	1 FAILED	300 N/R	102 185 13
						1 FAILED	400 N/R	102 185 13
4001B	NSC	1	Digital, Gate					CMOS
119	0478	SS	1500 Ohms	150E-12 F	1 N/R	3 FAILED	1220 VSS(+) INPUT A(-)	56 252 5
						10 FAILED	1570 VSS(+) INPUT A(-)	56 252 5
						10 FAILED	1830 VSS(+) INPUT A(-)	56 252 5
						2 PASSED	1830 VSS(+) INPUT A(-)	56 252 5
4001B	RCA	1	Digital, Gate					CMOS
105	0478	SS	1500 Ohms	150E-12 F	1 N/R	3 FAILED	1300 INPUT B(+) INPUT A(-)	56 252 5
						10 FAILED	3100 INPUT B(+) INPUT A(-)	56 252 5
						10 FAILED	4050 INPUT B(+) INPUT A(-)	56 252 5
						2 PASSED	4050 INPUT B(+) INPUT A(-)	56 252 5
4001B	N/R	1	Digital, Gate					CMOS
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED	1300 N/R	103 252 13

RAC ESD Database

Part Number	Part ESD		Part Description	Technology										
	Mfr	Class			Test	Test	Test	Test	Test	Test	Test	Test	Test	Test
40018	N/R	N/R	1 Digital, Gate	CMOS	Source	Date	Type	Resistance	Capacitance	Number	Date	Number	Date	General
					030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	13
														252
														103
														252
														13
40028	N/R	N/R	1 Digital, Gate	CMOS	Source	Date	Type	Resistance	Capacitance	Number	Date	Number	Date	General
					030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	13
														252
														103
														252
														13
4006	MOT	2	Digital, Register, Shift	CMOS	Source	Date	Type	Resistance	Capacitance	Number	Date	Number	Date	General
					029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	13
														188
					436	1186	SS	1500 Ohms	100E-12 F	17	N/R	3	FAILED	3
														252
														5
														252
														13
4006A	NSC	1	Digital, Register, Shift	CMOS	Source	Date	Type	Resistance	Capacitance	Number	Date	Number	Date	General
					436	1186	SS	1500 Ohms	100E-12 F	14	8552	1	FAILED	3
														252
					436	1186	SS	1500 Ohms	100E-12 F	11	8552	1	FAILED	3
														252
					436	1186	SS	1500 Ohms	100E-12 F	7	8552	1	FAILED	3
														252
														5
														252
														13
4006B	N/R	1	Digital, Register, Shift	CMOS	Source	Date	Type	Resistance	Capacitance	Number	Date	Number	Date	General
					030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	13
														252
														103
														252
														13
4006B	RCA	2	Digital, Register, Shift	CMOS	Source	Date	Type	Resistance	Capacitance	Number	Date	Number	Date	General
					436	1186	SS	1500 Ohms	100E-12 F	16	N/R	1	FAILED	3
														252
														5
														252
														13

RAC ESD Database

[illegible]

RAC ESD Database

[illegible]

RAC ESD Database

[illegible]

RAC ESD Database

Part Number	Part ESD		Part Description	Technology	
	Mfr	Class		Failure	Test
4011A	RCA	2	Digital, Gate	CMOS	
				Test	Test
				Source	General
				Date	Remarks
				Type	Remarks
				Resistance	Remarks
				Capacitance	Remarks
				Pulses	Remarks
				Code	Remarks
				Devices	Remarks
4011B	N/R	1	Digital, Gate	CMOS	
				Test	Test
				Source	General
				Date	Remarks
				Type	Remarks
				Resistance	Remarks
				Capacitance	Remarks
				Pulses	Remarks
				Code	Remarks
				Devices	Remarks
4012	INS	2	Digital, Gate	CMOS	
				Test	Test
				Source	General
				Date	Remarks
				Type	Remarks
				Resistance	Remarks
				Capacitance	Remarks
				Pulses	Remarks
				Code	Remarks
				Devices	Remarks
4012B	N/R	1	Digital, Gate	CMOS	
				Test	Test
				Source	General
				Date	Remarks
				Type	Remarks
				Resistance	Remarks
				Capacitance	Remarks
				Pulses	Remarks
				Code	Remarks
				Devices	Remarks
4013	FSC	1	Digital, Flip-Flop	CMOS	
				Test	Test
				Source	General
				Date	Remarks
				Type	Remarks
				Resistance	Remarks
				Capacitance	Remarks
				Pulses	Remarks
				Code	Remarks
				Devices	Remarks

RAC ESD Database

Part Number	Part ESD		Part Description	Test										Technology				
	Mfr	Class		Source	Date	Type	Resistance	Capacitance	Pulses	Code	Number	Test	Result	Voltage	Pin	Combination	Failure Criteria	Test Remarks
4013	FSC	1	Digital, Flip-Flop	165	0676	GN	1500 Ohms	100E-12 F	1	N/R	2	PASSED	400	N/R		57	146	14
4013	RCA	1	Digital, Flip-Flop	436	1186	SS	1500 Ohms	100E-12 F	13	N/R	1	FAILED	1800	OUTPUT TO GND		5	252	3
4013A	RCA	2	Digital, Flip-Flop	106	0478	SS	1500 Ohms	150E-12 F	1	N/R	3	FAILED	710	RESET(+) CLOCK(-)		56	252	5
											10	FAILED	900	RESET(+) CLOCK(-)		56	252	5
											10	FAILED	1000	RESET(+) CLOCK(-)		56	252	5
											2	PASSED	1000	RESET(+) CLOCK(-)		56	252	5
	N/R	SS	610 Ohms	164	N/R	SS	610 Ohms	100E-12 F	1	N/R	1	FAILED	3500	OUTPUT(1)(+)		57	252	2
											1	FAILED	3000	OUTPUT(1)(+)		57	252	2
											1	FAILED	3500	INPUT(5)(+)		57	158	2
											1	FAILED	2500	INPUT(5)(-)		57	252	2
											1	PASSED	4000	VSS(7)(+)		57	252	2
											1	FAILED	3000	VSS(7)(+)		57	160	2
											1	FAILED	2500	VDD(14)(+)		57	252	2
											1	PASSED	4000	VDD(14)(-)		57	252	2
	0178	SS	100 Ohms	026	0178	SS	100 Ohms	200E-12 F	1	N/R	4	FAILED	373	INPUT(5)(+) VSS(7)(-)		6	285	13
	0281	SS	100 Ohms	026	0281	SS	100 Ohms	200E-12 F	1	N/R	4	FAILED	205	VDD(14)(+) INPUT(3)(-)		34	285	13
	1284	SS	1500 Ohms	393	1284	SS	1500 Ohms	100E-12 F	1	N/R	2	FAILED	3500	11(INPUT) 7(VSS)		102	252	13
4013B	NSC	1	Digital, Flip-Flop	120	0478	SS	1500 Ohms	150E-12 F	1	N/R	3	FAILED	980	DATA(+) CLOCK(-)		56	252	5

RAC ESD Database

Part Number	Part	Part ESD		Part Description	Technology														
		Mfr	Class		Failure Criteria	Test Remarks	General Remarks												
40138		NSC	1	Digital, Flip-Flop	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Test	Number Pulses	Date Code	Devices	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
					120	0478	SS	1500 Ohms	150E-12 F		1	N/R	10	FAILED	1350 DATA(+)	CLOCK(-)	56	252	5
											10	FAILED	1620 DATA(+)	CLOCK(-)	56	252	5		
											2	PASSED	1620 DATA(+)	CLOCK(-)	56	252	5		
40138		RCA	1	Digital, Flip-Flop															
					107	0478	SS	1500 Ohms	150E-12 F		1	N/R	3	FAILED	860 SET(+)	DATA(-)	56	252	5
											10	FAILED	2200 SET(+)	DATA(-)	56	252	5		
											10	FAILED	4000 SET(+)	DATA(-)	56	252	5		
											2	PASSED	4000 SET(+)	DATA(-)	56	252	5		
					436	0488	SS	1500 Ohms	100E-12 F		14	N/R	5	FAILED	2000 COMMON TO	OUTPUT	5	252	3
40138		N/R	1	Digital, Flip-Flop															
					436	0488	SS	1500 Ohms	100E-12 F		12	N/R	5	FAILED	1500 COMMON TO	OUTPUT	5	252	3
					436	1186	SS	1500 Ohms	100E-12 F		12	N/R	1	FAILED	1600 OUTPUT TO	GND	5	252	3
					436	1186	SS	1500 Ohms	100E-12 F		13	N/R	1	FAILED	1800 GND TO	OUTPUT	5	252	3
					436	1186	SS	1500 Ohms	100E-12 F		14	N/R	5	FAILED	2000 INPUT AND	OUTPUT	5	252	3
40138		N/R	1	Digital, Flip-Flop															
					030	N/R	N/R	1500 Ohms	100E-12 F		1	N/R	1	FAILED	1000 N/R		103	252	13
40148		N/R	1	Digital, Register, Shift															
					030	N/R	N/R	1500 Ohms	100E-12 F		1	N/R	1	FAILED	1000 N/R		103	252	13
4015		MOT	2	Digital, Register, Shift															
					392	1086	SS	1500 Ohms	100E-12 F		1	N/R	5	FAILED	2750 EACH PIN TO 8 & 16 (+ -)		19	252	13

RAC ESD Database

Part Number	Part ESD		Part		Technology	
	Mfr	Class	Description			
4015B	N/R	1	Digital, Register, Shift		CMOS	
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1 FAILED
						1000 N/R
						1000 N/R
						103
						252
						13
						103
						252
						13
4015B	RCA	2	Digital, Register, Shift		CMOS	
	436	0788 SS	1500 Ohms	100E-12 F	18 N/R	
						10 FAILED
						10 FAILED
						4000 COMMON TO OUTPUT
						4000 INPUT TO COMMON
						5
						252
						3
						5
						252
						3
40160B	N/R	1	Digital, Counter/Divider		CMOS	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1 FAILED
						1000 N/R
						1000 N/R
						103
						252
						13
40161B	N/R	1	Digital, Counter/Divider		CMOS	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1000 N/R
						103
						252
						13
40161BC	N/R	1	Digital, Counter/Divider		CMOS	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1000 N/R
						103
						252
						13
40162B	N/R	1	Digital, Counter/Divider		CMOS	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1000 N/R
						103
						252
						13
40163B	N/R	1	Digital, Counter/Divider		CMOS	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1000 N/R
						103
						252
						13

RAC ESD Database

Part Number	Part ESD		Part Description	Technology									
	Mfr	Class		Failure Criteria				Test Voltage		General Remarks			
(Cont'd)	N/R	1	Digital, Counter/Divider	CMOS	103	252	13	103	252	13	103	252	13
40163B													
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Test Number	Test Result	Test Voltage	Test Pin Combination	Test Remarks	Test Remarks	Test Remarks
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1 FAILED	1000 N/R				
4016A	RCA	1	Linear, Switch										
	393	0884 SS	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000 N/R		102	252	13
40174B	N/R	1	Digital, Flip-Flop										
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1 FAILED	1000 N/R		103	252	13
								1 FAILED	1000 N/R		103	252	13
4017A	RCA	1	Digital, Counter/Divider										
	393	1284 SS	1500 Ohms	100E-12 F	1	N/R	2	FAILED	750 13(INPUT) 16(VDD)		102	252	13
4017B	N/R	1	Digital, Counter/Divider										
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1 FAILED	1000 N/R		103	252	13
								1 FAILED	1000 N/R		103	252	13
4018	FSC	1	Digital, Counter/Divider										
	007	N/R	GN	1500 Ohms	100E-12 F	1	N/R	2 PASSED	400 N/R		82	252	13
	008	N/R	GN	1500 Ohms	100E-12 F	1	N/R	2 PASSED	600 N/R		82	252	13
	009	N/R	GN	1500 Ohms	100E-12 F	1	N/R	2 PASSED	800 N/R		82	252	13
	010	N/R	GN	1500 Ohms	100E-12 F	1	N/R	2 PASSED	1000 N/R		82	252	13

RAC ESD Database

Part Number	ESD Class	Part Description	Mfr	Test Date	Test Type	Resistance	Capacitance	Pulses	Date	Number	Code	Test Result	Voltage	Pin Combination	Technology	
															Failure Criteria	Test Remarks
4018	NSC	2 Digital, Counter/Divider		0784	SS	1500 Ohms	100E-12 F	1	N/R	1	N/R	1 FAILED	2500 N/R		102	252
															13	13
4019	FSC	1 Digital, Gate		0676	GN	1500 Ohms	100E-12 F	1	N/R	2	N/R	2 PASSED	400 N/R		57	146
															14	14
				0878	SS	1500 Ohms	100E-12 F	1	N/R	1	N/R	1 FAILED	2000 INPUT(3)(+) OUT(12)(-)		81	167
												4 FAILED	2500 INPUT(5)(+) OUT(11)(-)		81	167
															13	13
				N/R	GN	1500 Ohms	100E-12 F	1	N/R	2	N/R	2 PASSED	400 N/R		82	252
															13	13
				N/R	GN	1500 Ohms	100E-12 F	1	N/R	2	N/R	2 PASSED	600 N/R		32	252
															13	13
				N/R	GN	1500 Ohms	100E-12 F	1	N/R	2	N/R	2 PASSED	800 N/R		82	252
															13	13
				N/R	GN	1500 Ohms	100E-12 F	1	N/R	1	N/R	1 PASSED	1000 N/R		82	252
												1 FAILED	1000 N/R		82	252
															13	13
4019	NSC	1 Digital, Gate		0878	SS	1500 Ohms	100E-12 F	1	N/R	4	N/R	4 FAILED	2000 INPUT(3)(+) OUT(12)(-)		81	167
															13	13
				0878	GN	1500 Ohms	100E-12 F	1	N/R	5	N/R	5 PASSED	400 N/R		83	252
															13	13
				0878	GN	1500 Ohms	100E-12 F	1	N/R	5	N/R	5 PASSED	600 N/R		83	252
															13	13
4019	SSS	1 Digital, Gate		0878	GN	1500 Ohms	100E-12 F	1	N/R	5	N/R	5 PASSED	200 N/R		83	252
															13	13
				0878	GN	1500 Ohms	100E-12 F	1	N/R	5	N/R	5 PASSED	400 N/R		83	252
															13	13

RAC ESD Database

Part Number	Part ESD		Part		Technology	
	Number (Cont'd)	Mfr Class	Description			
4019		SSS	1 Digital, Gate		CMOS	
		Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses
		013	0878 GN	1500 Ohms	100E-12 F	1 N/R
						5 FAILED
						600 N/R
						13
						83
						252
						13
401948		N/R	1 Digital, Register, Shift		CMOS	
		030	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1000 N/R
						1 FAILED
						1000 N/R
						13
						103
						252
						13
401958		N/R	1 Digital, Register, Shift		CMOS	
		030	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1000 N/R
						1 FAILED
						1000 N/R
						13
						103
						252
						13
4019A		NSC	1 Digital, Gate		CMOS	
		393	0180 SS	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1200 N/R
						13
4019B		RCA	1 Digital, Gate		CMOS	
		030	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1000 pin 4 (input) to VDD
						13
		436	0688 SS	1500 Ohms	100E-12 F	18 N/R
						5 FAILED
						4000 - OUTPUT TO + VSS (GROUND)
						5
						252
						3
4019B		N/R	1 Digital, Gate		CMOS	
		030	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1000 N/R
						13
						103
						252
						13
4020		SSS	2 Digital, Counter/Divider		CMOS	
		003	1175 SS	0 Ohms	100E-12 F	1 N/R
						1 FAILED
						900 INPUT(+) PR. SUPPLY(-)
						102
						252
						13

RAC ESD Database

Part Number	Part ES	Part Class	Part Description	Test										Technology		
				Source	Date	Type	Resistance	Capacitance	Pulses	Code	Number	Test	Result	Voltage	Pin Combination	Failure Criteria
4020B	N/A	1	Digital, Counter/Divider	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000 N/R	103	252	13
4020B	RCA	2	Digital, Counter/Divider	436	1186 SS	1500 Ohms	100E-12 F	18	N/R	1	PASSED	4000 N/R	5	252	3	
	436	1186 SS	1500 Ohms	100E-12 F	16	N/R	1	FAILED	3000	INPUT TO OUTPUT	5	252	3			
							1	FAILED	3000	INPUT TO GND	5	252	3			
	1	FAILED	3000	INPUT TO OUTPUT	5	252	3									
								1	FAILED	3000	INPUT TO OUTPUT	5	252	3		
	1	FAILED	3000	INPUT TO OUTPUT	5	252	3									
4021	NSC	1	Digital, Register, Shift	006	0878 SS	1500 Ohms	100E-12 F	1	N/R	3	FAILED	2000 INPUT(13)(+) OUT(12)	81	167	13	
	1	FAILED	800	INPUT(11)(+) OUT(12)	81	167	13									
								1	FAILED	800	INPUT(11)(+) OUT(12)	81	167	13		
	4021A	RCA	1	Digital, Register, Shift	156	N/R SS	610 Ohms	100E-12 F	1	N/R	2	PASSED	1500 OUTPUT(3)(+)	57	252	2
	57	252	2													
				1	FAILED	1500	OUTPUT(3)(-)	57	252	2						
				1	PASSED	1500	OUTPUT(3)(-)	57	252	2						
				2	PASSED	1500	VSS(8)(+)	57	252	2						
				2	PASSED	1500	PSC(9)(+)	57	252	2						
				2	PASSED	1500	P17(15)(+)	57	252	2						
				1	PASSED	1500	P17(15)(-)	57	159	2						
				1	PASSED	1500	VDD(16)(+)	57	159	2						
				1	PASSED	1500	VDD(16)(+)	57	252	2						
				2	PASSED	1500	VDD(16)(-)	57	252	2						
157	N/R GN	610 Ohms	100E-12 F	1	N/R	6	PASSED	1000 VSS(8)(-)	57	164	2					

RAC ESD Database

Part Number	Part ESD	Part	Mfr Class	Description	Technology											
(Cont'd)					CMOS											
4021A	RCA	1	Digital, Register, Shift													
	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	General			
	Source	Date	Type	Resistance	Capacitance	Pulses	Date	Number	Devices	Code	Voltage	Pin	Combination	Criteria	Remarks	Remarks
158	N/R	N/R	GN	610	Ohms	100E-12 F	1	N/R	1	PASSED	1200	OUTPUT(3)(-)	57	252	2	
									2	PASSED	1200	OUTPUT(3)(-)	57	164	2	
									1	FAILED	1200	OUTPUT(3)(-)	57	252	2	
159	N/R	N/R	GN	610	Ohms	100E-12 F	1	N/R	2	PASSED	1500	VSS(8)(-)	57	164	2	
									2	PASSED	1500	PSC(9)(-)	57	252	2	
									1	PASSED	1500	P17(15)(-)	57	164	2	
									4	PASSED	1500	VDD(16)(+)	57	164	2	
									2	PASSED	1500	OUTPUT(3)(-)	57	252	2	
									2	PASSED	1500	OUTPUT(3)(-)	57	164	2	
									1	FAILED	1500	OUTPUT(3)(-)	57	252	2	
									4	PASSED	1500	P17(15)(-)	57	164	2	
									3	PASSED	1500	VSS(8)(-)	57	164	2	
									1	FAILED	1500	VSS(8)(-)	57	252	2	
160	N/R	N/R	SS	610	Ohms	100E-12 F	1	N/R	6	FAILED	3208	VDD(16)(+)	57	187	2	
									2	FAILED	3250	VDD(16)(-)	57	187	2	
									2	FAILED	3250	OUTPUT(3)(+)	57	187	2	
									14	FAILED	2104	OUTPUT(3)(-)	57	187	2	
									2	FAILED	3250	VSS(8)(+)	57	187	2	
									12	FAILED	2063	VSS(8)(-)	57	187	2	
									2	FAILED	3250	P5(9)(+)	57	187	2	
									2	FAILED	4000	PSC(9)(-)	57	187	2	
									2	PASSED	5500	P17(15)(+)	57	187	2	
									5	FAILED	4000	P17(15)(-)	57	187	2	
233	N/R	N/R	SS	610	Ohms	100E-12 F	1	N/R	2	PASSED	1000	VSS(8)(-)	57	158	2	
									2	PASSED	1000	PSC(9)(-)	57	158	2	
									1	PASSED	1000	P17(15)(-)	57	158	2	
4021A	NSC	1	Digital, Register, Shift													
393	0180	SS	1500	Ohms	100E-12 F	1	N/R	1	FAILED	800	N/R	102	252	13		

RAC ESD Database

Part Number	Part ESD	Part	Mfr Class	Description	Technology											
4021B	FSC	2	Digital, Register, Shift	CMOS												
	Test	Test Test	Test	Number	Test	General										
	Source	Date	Type	Resistance	Capacitance	Pulses	Code	Devices	Pin	Combination	Failure	Test	Remarks			
161	N/R	N/R	SS	610	Ohms	100E-12	F	1	N/R	2	PASSED	4000	VSS(+)	57	252	2
								3	PASSED	4000	VSS(-)	57	162	57	162	2
								1	FAILED	4000	VSS(-)	57	160	57	160	2
								1	FAILED	2000	VSS(-)	57	252	57	252	2
								1	FAILED	4000	PSC(+)	57	161	57	161	2
								1	FAILED	2500	PSC(+)	57	159	57	159	2
								1	FAILED	3500	PSC(-)	57	159	57	159	2
								1	FAILED	2000	PSC(-)	57	252	57	252	2
								2	FAILED	4000	VDD(+)	57	252	57	252	2
								2	PASSED	4000	VDD(-)	57	252	57	252	2
								1	FAILED	2000	P17(+)	57	252	57	252	2
								1	FAILED	2000	P17(+)	57	159	57	159	2
								2	FAILED	2500	P17(-)	57	252	57	252	2
								1	FAILED	2500	OUTPUT(+)	57	252	57	252	2
								1	PASSED	4000	OUTPUT(+)	57	252	57	252	2
								5	PASSED	4000	OUTPUT(-)	57	252	57	252	2
4021B	N/R	1	Digital, Register, Shift	CMOS												
030	N/R	N/R	1500	Ohms	100E-12	F	1	N/R	1	FAILED	1000	N/R	103	252	103	13
								1	FAILED	1000	N/R	103	252	103	252	13
4023A	N/R	1	Digital, Gate	CMOS												
244	N/R	SS	1500	Ohms	100E-12	F	1	7614	1	FAILED	975	OUTPUT(+)	INPUT(-)	47	252	22
								1	FAILED	1000	OUTPUT(+)	INPUT(-)	47	252	47	22
								12	PASSED	1000	OUTPUT(+)	INPUT(-)	47	252	47	22
245	N/R	SS	100	Ohms	N/R	1	7614	15	FAILED	203	VSS(+)	INPUT(-)	47	186	47	21
4023B	N/R	1	Digital, Gate	CMOS												
030	N/R	N/R	1500	Ohms	100E-12	F	1	N/R	1	FAILED	1000	N/R	103	252	103	13

RAC ESD Database

Part Number	Part ESD	Part	Description				Technology									
			Mfr	Class	Description		CMOS									
4023B	N/R	1	Digital, Gate													
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Test Number	Test Date	Test Devices	Test Code	Test Pin Combination	Test Voltage	Test Result	Failure Criteria	Test Remarks	General Remarks
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	1000 N/R		103	252	13
4023D	N/R	1	Digital, Gate													
	244	N/R	SS	1500 Ohms	100E-12 F	1	N/R	3	FAILED		1000 VSS(+) INPUT(-)		47	252	22	
								11	PASSED		1000 VSS(+) INPUT(-)		47	252	22	
4024	SSS	1	Digital, Counter/Divider													
	003	1175	SS	0 Ohms	100E-12 F	1	7508	1	FAILED		400 INPUT(+) PR. SUPPLY(-)		102	252	13	
4024B	N/R	1	Digital, Counter/Divider													
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED		1000 N/R		103	252	13	
								1	FAILED		1000 N/R		103	252	13	
4024B	RCA	2	Digital, Counter/Divider													
	436	1186	SS	1500 Ohms	100E-12 F	18	N/R	5	PASSED		4000 N/R		5	252	3	
	436	1186	SS	1500 Ohms	100E-12 F	16	N/R	5	FAILED		3000 INPUT-GND AND INPUT-OUTPUT		5	252	3	
								5	FAILED		3000 INPUT TO OUTPUT		5	252	3	

RAC ESD Database

Part Number	Part ESD	Part	Description		Technology										
			Min	Max	Test Type	Resistance	Capacitance	Pulses	Date Code	Number Devices	Test Result	Voltage	Pin Combination	Failure Criteria	Test Remarks
027B	N/R	1	Digital, Gate	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 N/R	1 FAILED	1000 N/R	103	252	13	
027B	N/R	2	Digital, Flip-Flop	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 N/R	1 FAILED	2100 N/R	103	252	13	
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 N/R	1 FAILED	2100 N/R	13	252	13	103	252	13	
027B	RCA	2	Digital, Flip-Flop	N/R	N/R	1500 Ohms	100E-12 F	16 N/R	5 FAILED	3000 OUTPUT TO GROUND	5	252	5	3	
028A	NSC	2	Digital, Decoder	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	3 FAILED	3000 13(INPUT) 16(VCC)	102	252	102	13	
028B	N/R	1	Digital, Decoder	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED	1000 N/R	103	252	103	13	
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 N/R	1 FAILED	1000 N/R	13	252	13	103	252	13	
029	FSC	1	Digital, Counter/Divider	N/R	N/R	1500 Ohms	100E-12 F	1 7546	2 PASSED	400 N/R	57	146	57	14	
029B	N/R	1	Digital, Counter/Divider	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED	1000 N/R	103	252	103	13	
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 N/R	1 FAILED	1000 N/R	103	252	103	252	103	13	

RAC ESD Database

Part Number	Part ESD		Part Description	Technology			
	Mfr	Class		Test	Failure Criteria	Test Remarks	General Remarks
40298	N/R	1	Digital, Counter/Divider		CMOS		
	Test Source	Test Type	Test Resistance	Test Capacitance	Number Pulses	Number Devices	Test Voltage
	030	N/R	N/R	1500 Ohms	100E-12 F	1	1000 N/R
						1 FAILED	252
							13
40308	N/R	1	Digital, Gate		CMOS		
	030	N/R	N/R	1500 Ohms	100E-12 F	1	1000 N/R
						1 FAILED	252
							13
40308	SPR	2	Digital, Gate		CMOS		
	436	1186 SS	1500 Ohms	100E-12 F	16	1	3000 INPUT TO OUTPUT
						1 FAILED	252
							3
40308	RCA	2	Digital, Gate		CMOS		
	436	1186 SS	1500 Ohms	100E-12 F	18	1	4000 INPUT & OUTPUT TO COMMON
						1 FAILED	252
							3
40318	N/R	1	Digital, Register, Shift		CMOS		
	030	N/R	N/R	1500 Ohms	100E-12 F	1	1000 N/R
						1 FAILED	252
							13
40338	N/R	1	Digital, Counter/Divider		CMOS		
	030	N/R	N/R	1500 Ohms	100E-12 F	1	1000 N/R
						1 FAILED	252
							13
40348	N/R	1	Digital, Register, Shift, Combination		CMOS		
	030	N/R	N/R	1500 Ohms	100E-12 F	1	1000 N/R
						1 FAILED	252
							13

RAC ESD Database

Part Number (Cont'd)	Part ESD		Part Description	Technology			
	Mfr	Class		Failure Criteria	Test Remarks	General Remarks	
4034B	N/R	1	Digital, Register, Shift, Combination	CMOS			
Test Test Test Test				Test	Test	Test	Test
Source Date Type Resistance Capacitance Pulses Code Devices				Result	Voltage	Pin Combination	Remarks
030	N/R	N/R	1500 Ohms 100E-12 F	1 FAILED	1000 N/R		103 252 13
4035	NSC	1	Digital, Register, Shift	CMOS			
006	0878	SS	1500 Ohms 100E-12 F	1 N/R			
				2 FAILED	1200 INPUT(2)(+) OUT(1)(-)		81 167 13
				1 FAILED	2000 INPUT(3)(+) OUT(13)(-)		81 167 13
4035	SSS	1	Digital, Register, Shift	CMOS			
006	0878	SS	1500 Ohms 100E-12 F	1 N/R			
				2 FAILED	1200 INPUT(2)(+) OUT(1)(-)		81 167 13
				1 FAILED	1000 IN(10)(+) OUT(15)(-)		81 167 13
4035A	NSC	1	Digital, Register, Shift	CMOS			
393	0180	SS	1500 Ohms 100E-12 F	1 N/R	1000 N/R		102 252 13
4035B	N/R	1	Digital, Register, Shift	CMOS			
030	N/R	N/R	1500 Ohms 100E-12 F	1 N/R			
				1 FAILED	1000 N/R		103 252 13
				1 FAILED	1000 N/R		103 252 13
4040	FSC	1	Digital, Counter/Divider	CMOS			
165	0676	GN	1500 Ohms 100E-12 F	1 N/R	400 N/R		57 146 14
4040A	RCA	2	Digital, Counter/Divider	CMOS			
393	1284	SS	1500 Ohms 100E-12 F	1 N/R	4000 N/R		102 252 13

RAC ESD Database

Part Number	Part		Description		Technology	
	Part	ESD	Class	Part	Technology	CMOS
40408	N/R	N/R	1	Digital, Counter/Divider	CMOS	
	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Test Number
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1000 N/R
						1000 N/R
						13
						103
						252
						13
40428	N/R	N/R	1	Digital, Latch	CMOS	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1000 N/R
						1000 N/R
						13
						103
						252
						13
4043	MOT	N/R	3	Digital, Latch	CMOS	
	029	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						6783 N/R
						13
						102
						188
40438	N/R	N/R	1	Digital, Latch	CMOS	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1000 N/R
						13
						103
						252
4044	NSC	N/R	1	Digital, Latch	CMOS	
	006	0878 SS	1500 Ohms	100E-12 F	1 N/R	3 FAILED
						1000 INPUT(14)(+) OUT(1)(-)
						13
						81
						167
4044	SSS	N/R	1	Digital, Latch	CMOS	
	006	0878 SS	1500 Ohms	100E-12 F	1 N/R	1 FAILED
						1200 INPUT(3)(+) OUT(13)(-)
						13
						81
						167
						13
						81
						167
						13
4044A	SSS	N/R	1	Digital, Latch	CMOS	
	393	0180 SS	1500 Ohms	100E-12 F	1 N/R	1 FAILED
						600 N/R
						13
						102
						252

RAC ESD Database

Part Number	(Cont'd)	Part ESD		Part Description	Technology										
		Mfr	Class			Test	Test	Test	Test	Test	Test	Test	Test	Test	Test
4044A		NSC	1	Digital, Latch	CMOS										
		Source	Date	Type	Resistance	Capacitance	Number	Date	Number	Devices	Code	Pulses	Test	Result	General
		393	0180	SS	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000	N/R	102	252	13
4046B		N/R	1	Linear, Phase Lock Loop	CMOS										
		030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000	N/R	103	252	13
							1		1	FAILED	1000	N/R	103	252	13
4046B		SSS	1	Linear, Phase Lock Loop	CMOS										
		436	1186	SS	1500 Ohms	100E-12 F	9	N/R	1	FAILED	1000	INPUT TO COMMON	5	151	3
							1		1	FAILED	1000	INPUT TO COMMON	5	253	3
4047		N/R	1	Digital, Multivibrator	CMOS										
		030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000	N/R	103	252	13
4049		FSC	1	Digital, Inverter, Buffer	CMOS										
		007	N/R	GN	1500 Ohms	100E-12 F	1	N/R	2	PASSED	400	N/R	82	252	13
		008	N/R	GN	1500 Ohms	100E-12 F	1	N/R	2	PASSED	600	N/R	82	252	13
		009	N/R	GN	1500 Ohms	100E-12 F	1	N/R	1	FAILED	200	N/R	82	252	13
							1		1	PASSED	800	N/R	82	252	13
		010	N/R	GN	1500 Ohms	100E-12 F	1	N/R	2	FAILED	200	N/R	82	252	13
4049		SSS	1	Digital, Inverter, Buffer	CMOS										
		003	1175	SS	0 Ohms	100E-12 F	1	N/R	1	FAILED	200	INPUT(+) PR. SUPPLY(-)	102	252	13

RAC ESD Database

Part Number (Cont'd)	Part ESD Mfr Class	Part Description	Technology											
			CMOS											
SSS 1 Digital, Inverter, Buffer														
Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test	Number Devices	Date Code	Number Pulses	Test Result	Test Voltage	Test Pin Combination	Failure Criteria	Test Remarks	General Remarks
006	0878	SS	1500 Ohms	100E-12 F	100E-12 F	1	N/R	1	3 FAILED	1000	INPUT(9)(+) OUT(10)(-)	81	167	13
						1			1 FAILED	600	INPUT(5)(+) OUT(4)(-)	81	167	13
011	0878	GN	1500 Ohms	100E-12 F	100E-12 F	1	N/R	1	5 PASSED	200	N/R	83	252	13
012	0878	GN	1500 Ohms	100E-12 F	100E-12 F	1	N/R	1	5 PASSED	400	N/R	83	252	13
013	0878	GN	1500 Ohms	100E-12 F	100E-12 F	1	N/R	1	5 PASSED	600	N/R	83	252	13
NSC 1 Digital, Inverter, Buffer														
CMOS														
090	0278	SS	1500 Ohms	150E-12 F	150E-12 F	1	N/R	1	3 FAILED	900	GATE(+) VSS(-)	56	252	5
						10			10 FAILED	1250	GATE(+) VSS(-)	56	252	5
						10			10 FAILED	1520	GATE(+) VSS(-)	56	252	5
						2			2 PASSED	1520	GATE(+) VSS(-)	56	252	5
091	0278	GN	1500 Ohms	150E-12 F	150E-12 F	1	N/R	1	7 FAILED	1125	GATE(+) VSS(-)	56	252	13
						18			18 PASSED	1125	GATE(+) VSS(-)	56	252	13
092	0278	GN	1500 Ohms	150E-12 F	150E-12 F	1	N/R	1	16 FAILED	1350	GATE(+) VSS(-)	56	252	13
						9			9 PASSED	1350	GATE(+) VSS(-)	56	252	13
121	0478	SS	1500 Ohms	150E-12 F	150E-12 F	1	N/R	1	3 FAILED	900	INPUT(+) VSS(-)	56	252	5
						10			10 FAILED	1250	INPUT(+) VSS(-)	56	252	5
						10			10 FAILED	1520	INPUT(+) VSS(-)	56	252	5
						2			2 PASSED	1520	INPUT(+) VSS(-)	56	252	5
011	0878	GN	1500 Ohms	100E-12 F	100E-12 F	1	N/R	1	5 PASSED	200	N/R	83	252	13
012	0878	GN	1500 Ohms	100E-12 F	100E-12 F	1	N/R	1	5 PASSED	400	N/R	83	252	13
013	0878	GN	1500 Ohms	100E-12 F	100E-12 F	1	N/R	1	5 PASSED	600	N/R	83	252	13

RAC ESD Database

Part Number	Part ES D	Mir Class	Part Description												Technology			
				Test Date	Test Type	Resistance	Capacitance	Pulses	Date	Number Devices	Test Result	Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks		
4049A	RCA	1	Digital, Inverter, Buffer	108	0478	SS	1500 Ohms	150E-12 F	1	N/R	3	FAILED	1200	INPUT(+)	VCC(-)	56	252	5
										10	FAILED	1750	INPUT(+)	VCC(-)	56	252	5	
										10	FAILED	2200	INPUT(+)	VCC(-)	56	252	5	
										2	PASSED	2200	INPUT(+)	VCC(-)	56	252	5	
4049A	SSS	1	Digital, Inverter, Buffer															
				393	0878	SS	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	102	252	13	
				393	0180	SS	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000	N/R	102	252	13	
				393	0784	SS	1500 Ohms	100E-12 F	1	N/R	1	FAILED	800	N/R	102	252	13	
4049UB	RCA	1	Digital, Inverter, Buffer															
				109	0478	SS	1500 Ohms	150E-12 F	1	N/R	3	FAILED	980	INPUT(+)	VCC(-)	56	252	5
										10	FAILED	1460	INPUT(+)	VCC(-)	56	252	5	
										10	FAILED	1950	INPUT(+)	VCC(-)	56	252	5	
4049UB	N/R	1	Digital, Inverter, Buffer															
										2	PASSED	1950	INPUT(+)	VCC(-)	56	252	5	
				030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000	N/R	103	252	13	
										1	FAILED	1000	N/R	103	252	13		
4050	FSC	1	Digital, Inverter, Buffer															
				165	0676	GN	1500 Ohms	100E-12 F	1	N/R	2	PASSED	400	N/R	57	146	14	
				007	N/R	GN	1500 Ohms	100E-12 F	1	N/R	2	PASSED	400	N/R	82	252	13	

RAC ESD Database

Part Number	Part ESD		Part		Technology	
	Mfr Class		Description		CMOS	
	FSC	1	Digital, Inverter, Buffer			
Test Source	Test Test		Test		Test	
	Date	Type	Resistance	Capacitance	Pulses	Number
008	N/R	GN	1500 Ohms	100E-12 F	1	N/R
	008	N/R	GN	1500 Ohms	100E-12 F	1
009	N/R	GN	1500 Ohms	100E-12 F	1	N/R
	009	N/R	GN	1500 Ohms	100E-12 F	1
010	N/R	GN	1500 Ohms	100E-12 F	1	N/R
	010	N/R	GN	1500 Ohms	100E-12 F	1
4050	SSS	1	Digital, Inverter, Buffer			
	165	0676	GN	1500 Ohms	100E-12 F	1
006	0878	SS	1500 Ohms	100E-12 F	1	N/R
	011	0878	GN	1500 Ohms	100E-12 F	1
012	0878	GN	1500 Ohms	100E-12 F	1	N/R
	012	0878	GN	1500 Ohms	100E-12 F	1
013	0878	GN	1500 Ohms	100E-12 F	1	N/R
	013	0878	GN	1500 Ohms	100E-12 F	1
4050	NSC	1	Digital, Inverter, Buffer			
	011	0878	GN	1500 Ohms	100E-12 F	1
012	0878	GN	1500 Ohms	100E-12 F	1	N/R
	012	0878	GN	1500 Ohms	100E-12 F	1
013	0878	GN	1500 Ohms	100E-12 F	1	N/R
	013	0878	GN	1500 Ohms	100E-12 F	1
4050	N/R	1	Digital, Inverter, Buffer			
	384	N/R	SS	1000 Chms	200E-12 F	1

Failure Test		General	
Criteria	Remarks	Criteria	Remarks
82	252	13	13
82	252	13	13
82	252	13	13
82	252	13	13
CMOS			
57	146	14	14
81	167	13	13
81	167	13	13
81	167	13	13
83	252	13	13
83	252	13	13
83	252	13	13
CMOS			
83	252	13	13
83	252	13	13
83	252	13	13
CMOS			
52	100	24	24

RAC ESD Database

Part Number	Part ESD		Part Description	Technology													
	Mfr	Class		Failure Criteria	General Remarks												
4050A	SSS	1	Digital, Inverter, Buffer	CMOS													
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Number Code	Date	Devices	Result	Test Voltage	Pin Combination	Test	Failure Criteria	Test Remarks	General Remarks	
	393	0878	SS	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	600	N/R		102	252	13
4050A	NSC	1	Digital, Inverter, Buffer	CMOS													
	393	0878	SS	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	2000	N/R		102	252	13
	LEA	1	Digital, Inverter, Buffer	CMOS													
4050B	N/R	1	Digital, Inverter, Buffer	CMOS													
	393	0180	SS	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	1200	N/R		102	252	13
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	1000	N/R		103	252	13
4050B	RCA	1	Digital, Inverter, Buffer	CMOS													
	436	0588	SS	1500 Ohms	100E-12 F	14	N/R	5	5	FAILED	2000	INPUT TO OUTPUT		5	252	3	
	436	0588	SS	1500 Ohms	100E-12 F	11	N/R	5	5	FAILED	1400	INPUT TO COMMON		5	252	3	
4051	436	1186	SS	1500 Ohms	100E-12 F	4	N/R	1	1	FAILED	500	INPUT TO OUTPUT		5	252	3	
	436	1186	SS	1500 Ohms	100E-12 F	18	N/R	1	1	PASSED	4000	N/R		5	252	3	
	436	1186	SS	1500 Ohms	100E-12 F	14	N/R	5	5	FAILED	2000	INPUT TO GND		5	252	3	
4051	RCA	2	Digital, Multiplexer	CMOS													
	393	0784	SS	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	3000	N/R		102	252	13

RAC ESD Database

Part Number	Part	Part ESD						Technology							
		Mfr Class	Description	Test		Test		Test		Test		Test		General Remarks	
4051B	N/R	1	Digital, Multiplexer	Test Type	Resistance	Capacitance	Pulses	Date Code	Number Devices	Test Result	Voltage	Pin Combination	Failure Criteria	Test Remarks	Remarks
					1500 Ohms	100E-12 F	1 N/R			1 FAILED	1000 N/R		103	252	13
							1			1 FAILED	1000 N/R		103	252	13
4052B	N/R	1	Digital, Multiplexer										CMOS		
					1500 Ohms	100E-12 F	1 N/R			1 FAILED	1000 N/R		103	252	13
							1			1 FAILED	1000 N/R		103	252	13
4053	NSC	1	Digital, Multiplexer										CMOS		
					1500 Ohms	150E-12 F	1 N/R			3 FAILED	720 VEE(+)	SELECT A(-)	56	252	5
										10 FAILED	1070 VEE(+)	SELECT A(-)	56	252	5
										10 FAILED	1400 VEE(+)	SELECT A(-)	56	252	5
										2 PASSED	1400 VEE(+)	SELECT A(-)	56	252	5
4053B	RCA	1	Digital, Multiplexer										CMOS		
					1500 Ohms	150E-12 F	1 N/R			3 FAILED	435 VEE(+)	SELECT A(-)	56	252	5
										10 FAILED	740 VEE(+)	SELECT A(-)	56	252	5
										10 FAILED	1020 VEE(+)	SELECT A(-)	56	252	5
										2 PASSED	1020 VEE(+)	SELECT A(-)	56	252	5
4053B	FSC	1	Digital, Multiplexer										CMOS		
					1500 Ohms	150E-12 F	1 N/R			3 FAILED	1610 VEE(+)	SELECT A(-)	56	252	5
										10 FAILED	1950 VEE(+)	SELECT A(-)	56	252	5
										10 FAILED	2200 VEE(+)	SELECT A(-)	56	252	5
										2 PASSED	2200 VEE(+)	SELECT A(-)	56	252	5
4053B	N/R	1	Digital, Multiplexer										CMOS		
					1500 Ohms	100E-12 F	1 N/R			1 FAILED	1100 N/R		103	252	13

RAC ESD Database

Part Number	Part ESD		Part Description	Technology	
	Mfr	Class		Failure Criteria	Test Remarks
40538	N/R	1	Digital, Multiplexer	CMOS	103 252 13
4066	N/R	3	Linear, Switch	CMOS	
245	N/R	SS	100 Ohms N/R	47	186 21
4066	NSC	1	Linear, Switch	CMOS	
416	0184 SS	1500 Ohms	100E-12 F	25	252 13
40668	N/R	1	Linear, switch	CMOS	
030	N/R	N/R	1500 Ohms 100E-12 F	103	252 13
				103	252 13
40668	RCA	1	Linear, Switch	CMOS	
436	1186 SS	1500 Ohms	100E-12 F	5	252 3
436	1186 SS	1500 Ohms	100E-12 F	5	252 3
436	1186 SS	1500 Ohms	100E-12 F	5	252 3
40678	N/R	1	Digital, Multiplexer	CMOS	
030	N/R	N/R	1500 Ohms 100E-12 F	103	252 13
				103	252 13
40688	N/R	1	Digital, Gate	CMOS	
030	N/R	N/R	1500 Ohms 100E-12 F	103	252 13

RAC ESD Database

Part Number	Part ESD		Part Description	Technology										
	Mfr	Class			Test	Test	Test	Test	Test	Test	Test	Test	Test	Test
40688	N/R	N/R	1	Digital, Gate										
					Source	Date	Type	Resistance	Capacitance	Pulses	Code	Devices	Voltage	Pin Combination
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000	N/R	3	103	252
4069	FSC	1	Digital, Inverter, Buffer	CMOS										
	165	0676	GN	1500 Ohms	100E-12 F	1	N/R	2	PASSED	400	N/R	4	57	146
4069	SSS	1	Digital, Inverter, Buffer	CMOS										
	165	0676	GN	1500 Ohms	100E-12 F	1	N/R	2	PASSED	400	N/R	14	57	146
40698	NSC	1	Digital, Inverter, Buffer	CMOS										
	089	0278	SS	1500 Ohms	150E-12 F	1	N/R	3	FAILED	960	VDD(+) GATE(-)	5	56	252
								10	FAILED	1300	VDD(+) GATE(-)	5	56	252
								10	FAILED	1600	VDD(+) GATE(-)	5	56	252
								2	PASSED	1600	VDD(+) GATE(-)	5	56	252
40698	N/R	1	Digital, Inverter, Buffer	CMOS										
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000	N/R	13	103	252
								1	FAILED	1000	N/R	13	103	252
4069UB	RCA	1	Digital, Inverter, Buffer	CMOS										
	038	0278	SS	1500 Ohms	150E-12 F	1	N/R	3	FAILED	730	VDD(+) GATE(-)	5	56	252
								10	FAILED	1080	VDD(+) GATE(-)	5	56	252
								10	FAILED	1510	VDD(+) GATE(-)	5	56	252
								2	PASSED	1510	VDD(+) GATE(-)	5	56	252

RAC ESD Database

Part Number	Part ESD	Part	Description		Test										Technology						
			Mfr	Class	Source Date	Type	Resistance	Capacitance	Test	Number	Date	Devices	Test	Test	Failure Criteria	Test Remarks	General Remarks				
406906	RCA	1	Digital, Inverter, Buffer	CMOS	436	1186	SS	1500	Ohms	100E-12	F	18	N/R	1	PASSED	4000	N/R	5	252	3	
406908	N/R	1	Digital, Inverter, Buffer	CMOS	030	N/R	N/R	1500	Ohms	100E-12	F	1	N/R	1	FAILED	1000	N/R	103	252	13	
4070	FSC	1	Digital, Gate	CMOS	165	0676	GN	1500	Ohms	100E-12	F	1	7602	2	PASSED	400	N/R	57	146	14	
40708	SSS	2	Digital, Gate	CMOS	390	N/R	GN	1500	Ohms	100E-12	F	5	N/R	1	PASSED	2000	S/R	105	247	11	
40718	N/R	1	Digital, Gate	CMOS																	
					030	N/R	N/R	1500	Ohms	100E-12	F	1	N/R	1	FAILED	1000	N/R	103	252	13	
40738	N/R	1	Digital, Gate	CMOS																	
					030	N/R	N/R	1500	Ohms	100E-12	F	1	N/R	1	FAILED	1000	N/R	103	252	13	
40768	N/R	1	Digital, Flip-flop	CMOS																	
					030	N/R	N/R	1500	Ohms	100E-12	F	1	N/R	1	FAILED	1000	N/R	103	252	13	

RAC ESD Database

Part Number	Part ESD		Part Description	Technology										
	Mfr	Class			Test	Test Type	Resistance	Capacitance	Pulses	Code	Number	Test Result	Test Voltage	Pin Combination
40769	N/R	N/R	1 Digital, Flip-Flop	CMOS	030	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000 N/R	103 252 13
40778	N/R	N/R	1 Digital, Gate	CMOS	030	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000 N/R	103 252 13
4081B	RCA	2	Digital, Gate	CMOS	162	N/R	SS	610 Ohms	100E-12 F	1	N/R	2 PASSED	4500 INPUT(1)(+)	57 252 2
												2 FAILED	4500 INPUT(1)(-)	57 252 2
												2 FAILED	4500 OUTPUT(4)(+)	57 252 2
												1 PASSED	4500 OUTPUT(4)(-)	57 163 2
												1 PASSED	4500 OUTPUT(4)(-)	57 252 2
												2 PASSED	4500 VSS(7)(+)	57 252 2
												1 FAILED	4000 VSS(7)(-)	57 252 2
												1 PASSED	4500 VSS(7)(-)	57 162 2
												2 PASSED	4500 VDD(14)(+)	57 252 2
												2 PASSED	4500 VDD(14)(-)	57 252 2
436	0488	SS	1500 Ohms	100E-12 F	17	N/R	5 FAILED	3500 INPUT TO COMMON	5	252	3			
436	1186	SS	1500 Ohms	100E-12 F	17	N/R	5 FAILED	3500 INPUT TO GND	5	252	3			
4081B	N/R	1	Digital, Gate	CMOS	030	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000 N/R	103 252 13
												1 FAILED	1000 N/R	103 252 13
40810B	RCA	2	Digital, Inverter, Buffer	CMOS	436	0788	SS	1500 Ohms	100E-12 F	17	8729	5 FAILED	3500 INPUT TO VSS	5 252 3

RAC ESD Database

Part Number	Part ESD		Part Description	Technology									
	Mfr	Class		Failure Criteria	Test Remarks	General Remarks							
40828	N/R	1	Digital, Gate	CMOS									
	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test			
	Source	Date	Type	Resistance	Capacitance	Pulses	Date	Code	Devices	Result	Voltage		
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	1 FAILED	1000 N/R	103	252	13
						1		1	1 FAILED	1000 N/R	103	252	13
40858	N/R	1	Digital, Gate	CMOS									
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	1 FAILED	1000 N/R	103	252	13
						1		1	1 FAILED	1000 N/R	103	252	13
40868	N/R	1	Digital, Gate	CMOS									
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	1 FAILED	1000 N/R	103	252	13
						1		1	1 FAILED	1000 N/R	103	252	13
4093	NSC	1	Digital, Gate	CMOS									
	006	0878	SS	1500 Ohms	100E-12 F	1	N/R	1	1 FAILED	2000 INPUT(9)(+) OUT(10)(-)	81	167	13
						2		2	2 FAILED	2500 INPUT(13)(+) OUT(11)	81	167	13
						1		1	1 FAILED	1500 INPUT(5)(+) OUT(4)(-)	81	167	13
	393	0180	SS	1500 Ohms	100E-12 F	1	N/R	1	1 FAILED	1500 N/R	102	252	13
40938	N/R	1	Digital, Gate	CMOS									
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	1 FAILED	1000 N/R	103	252	13
						1		1	1 FAILED	1000 N/R	103	252	13
4094	RCA	2	Digital, Register, Shift	CMOS									
	393	1284	SS	1500 Ohms	100E-12 F	1	N/R	2	2 FAILED	3500 1(INPUT) 16(VDD)	102	252	13

RAC ESD Database

Part Number	Part ESD		Part Description	Technology											
	Mfr N/R	Class		CMOS											
40998	1			Digital, Latch											
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test	Number	Date	Test	Test Result	Test Voltage	Test Pin Combination	Failure Criteria	Test Remarks	General Remarks
	030	N/R	N/R	1500 Ohms	100E-12 F	100E-12 F	1	N/R	1	FAILED	1000 N/R		103	252	13
	MOS 1 Digital, Memory, RAM, Dynamic														
	061	0978	SS	1000 Ohms	220E-12 F		1	N/R	1	FAILED	500 N/R		2	252	13
							8		FAILED	1000 N/R		2	252	13	
							1		PASSED	1000 N/R		2	252	13	
	062	1079	GN	1000 Ohms	220E-12 F		1	N/R	6	FAILED	1000 VCC(+) VBB, VDD(-)		102	252	13
							4		PASSED	1000 VCC(+) VBB, VDD(-)		102	252	13	
	062	1079	GN	1000 Ohms	220E-12 F		5	N/R	3	FAILED	1000 VCC(+) VDD, VSS(-)		102	252	13
							2		PASSED	1000 VCC(+) VDD, VSS(-)		102	252	13	
	063	1079	SS	1000 Ohms	220E-12 F		1	N/R	4	FAILED	800 VCC(+) VBB, VDD(-)		102	252	13
							4		FAILED	1000 VCC(+) VBB, VDD(-)		102	252	13	
							2		PASSED	1000 VCC(+) VBB, VDD(-)		102	252	13	
064	1079	SS	100 Ohms	200E-12 F		1	N/R	1	FAILED	1000 VCC(+) VBB, VDD(-)		102	252	13	
						4		FAILED	1200 VCC(+) VBB, VDD(-)		102	252	13		
065	1079	GN	100 Ohms	220E-12 F		1	N/R	2	FAILED	1000 VCC(+) VBB, VDD(-)		102	252	13	
065	1079	GN	100 Ohms	220E-12 F		2	N/R	7	FAILED	1000 VCC(+) VBB, VDD(-)		102	252	13	
						1		PASSED	1000 VCC(+) VBB, VDD(-)		102	252	13		
065	1079	GN	100 Ohms	220E-12 F		1	N/R	4	FAILED	1000 VCC(+) VDD, VSS(-)		102	252	13	
						1		PASSED	1000 VCC(+) VDD, VSS(-)		102	252	13		
066	1079	GN	1000 Ohms	220E-12 F		1	N/R	2	FAILED	1200 VCC(+) VDD, VSS(-)		102	252	13	
						3		PASSED	1200 VCC(+) VDD, VSS(-)		102	252	13		
129	0780	GN	1500 Ohms	100E-12 F		1	N/R	5	PASSED	500 EACH PIN(+) APTT(-)		102	252	13	

RAC ESD Database

[illegible]

RAC ESD Database

Part Number (Cont'd)	Part ESD		Part		Description				Technology	
	Mfr	Class	Test	Test	Test	Test	Test	Test	Failure	Test
416	NEC	1	Digital, Memory, RAM, Dynamic						NMOS	
	Source	Date	Type	Resistance	Capacitance	Pulses	Code	Devices	Pin Combination	General
132	0680	GN	1500 Ohms	100E-12 F	1 N/R	1 N/R	2 PASSED	700 EACH PIN(+)	APIT(-)	102 252 13
136	0680	GN	1500 Ohms	100E-12 F	1 N/R	1 N/R	5 FAILED	1000 EACH PIN(+)	APIT(-)	102 252 13
4164	TEX	2	Digital, Memory, RAM, Dynamic						NMOS	
393	0884	SS	1500 Ohms	100E-12 F	1 N/R	1 N/R	1 FAILED	2500 10(INPUT)	8(VCC)	102 252 13
420	NSC	2	Digital, Processing Unit, Central						NMOS	
393	0383	SS	1500 Ohms	100E-12 F	1 N/R	1 N/R	1 FAILED	2500 N/R		102 246 13
4502B	N/R	1	Digital, Inverter, Buffer						CMOS	
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 N/R	1 FAILED	1000 N/R		103 252 13
							1 FAILED	1000 N/R		103 252 13
4503B	N/R	1	Digital, Inverter, Buffer						CMOS	
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 N/R	1 FAILED	1000 N/R		103 252 13
							1 FAILED	1000 N/R		103 252 13
4508B	N/R	1	Digital, Latch						CMOS	
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 N/R	1 FAILED	1000 N/R		103 252 13
							1 FAILED	1000 N/R		103 252 13
4511	RCA	1	Digital, Decoder						CMOS	
006	0878	SS	1500 Ohms	100E-12 F	1 N/R	1 N/R	2 FAILED	1500 INPUT(6)(+)	OUT(10)(-)	81 167 13

RAC ESD Database

Part Number	(Cont'd)	Part ESD		Part Description	Technology
		Mfr	Class		
4511		RCA	1	Digital, Decoder	CMOS
		Test	Test	Test	Test
		Date	Type	Resistance	Capacitance
		006	0878 SS	1500 Ohms	100E-12 F
		Number	Date	Number	Date
		1	N/R	1	N/R
		Pulses	Code	Devices	Code
		1	N/R	1	N/R
		Test	Result	Test	Result
		1	FAILED	1	FAILED
		Voltage	Pin	Combination	OUT(9)(-)
		2000	INPUT(7)(+)	OUT(9)(-)	
		Failure	Test	Criteria	Remarks
		81	167		13
4511B		N/R	1	Digital, Decoder	CMOS
030		N/R	N/R	1500 Ohms	100E-12 F
		Number	Date	Number	Date
		1	N/R	1	N/R
		Pulses	Code	Devices	Code
		1	N/R	1	N/R
		Test	Result	Test	Result
		1	FAILED	1	FAILED
		Voltage	Pin	Combination	OUT(9)(-)
		2000	INPUT(7)(+)	OUT(9)(-)	
		Failure	Test	Criteria	Remarks
		103	252		13
4512B		N/R	1	Digital, Multiplexer	CMOS
030		N/R	N/R	1500 Ohms	100E-12 F
		Number	Date	Number	Date
		1	N/R	1	N/R
		Pulses	Code	Devices	Code
		1	N/R	1	N/R
		Test	Result	Test	Result
		1	FAILED	1	FAILED
		Voltage	Pin	Combination	OUT(9)(-)
		2000	INPUT(7)(+)	OUT(9)(-)	
		Failure	Test	Criteria	Remarks
		103	252		13
4514B		N/R	1	Digital, Decoder	CMOS
030		N/R	N/R	1500 Ohms	100E-12 F
		Number	Date	Number	Date
		1	N/R	1	N/R
		Pulses	Code	Devices	Code
		1	N/R	1	N/R
		Test	Result	Test	Result
		1	FAILED	1	FAILED
		Voltage	Pin	Combination	OUT(9)(-)
		2000	INPUT(7)(+)	OUT(9)(-)	
		Failure	Test	Criteria	Remarks
		103	252		13
4515B		N/R	1	Digital, Decoder	CMOS
030		N/R	N/R	1500 Ohms	100E-12 F
		Number	Date	Number	Date
		1	N/R	1	N/R
		Pulses	Code	Devices	Code
		1	N/R	1	N/R
		Test	Result	Test	Result
		1	FAILED	1	FAILED
		Voltage	Pin	Combination	OUT(9)(-)
		2000	INPUT(7)(+)	OUT(9)(-)	
		Failure	Test	Criteria	Remarks
		103	252		13
4516B		N/R	1	Digital, Counter/Divider	CMOS
030		N/R	N/R	1500 Ohms	100E-12 F
		Number	Date	Number	Date
		1	N/R	1	N/R
		Pulses	Code	Devices	Code
		1	N/R	1	N/R
		Test	Result	Test	Result
		1	FAILED	1	FAILED
		Voltage	Pin	Combination	OUT(9)(-)
		2000	INPUT(7)(+)	OUT(9)(-)	
		Failure	Test	Criteria	Remarks
		103	252		13
4518B		N/R	1	Digital, Counter/Divider	CMOS
030		N/R	N/R	1500 Ohms	100E-12 F
		Number	Date	Number	Date
		1	N/R	1	N/R
		Pulses	Code	Devices	Code
		1	N/R	1	N/R
		Test	Result	Test	Result
		1	FAILED	1	FAILED
		Voltage	Pin	Combination	OUT(9)(-)
		2000	INPUT(7)(+)	OUT(9)(-)	
		Failure	Test	Criteria	Remarks
		103	252		13

RAC ESD Database

Part Number	Part ESD		Part Description	Test	Test Type	Resistance	Capacitance	Pulses	Number	Date	Code	Devices	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
	Mfr	Class																
45188	N/R	N/R	1	Digital, Counter/Divider	030	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1 FAILED	1000 N/R		103	252	13
45198	N/R	N/R	1	Digital, Gate	030	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1 FAILED	1000 N/R		103	252	13
45208	N/R	N/R	1	Digital, Counter/Divider	030	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1 FAILED	1000 N/R		103	252	13
45288	N/R	N/R	1	Digital, Multivibrator	030	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1 FAILED	1000 N/R		103	252	13
45398	N/R	N/R	1	Digital, Multiplexer	030	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1 FAILED	1000 N/R		103	252	13
45558	N/R	N/R	1	Digital, Decoder	030	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1 FAILED	1000 N/R		103	252	13
4558	N/R	N/R	1	Linear, Operational Amplifier	030	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1 FAILED	1000 N/R		103	252	13

RAC ESD Database

Part Number	Part ESD	Part	Description										Technology					
			Mfr	Class	Description										Failure Test	General Remarks		
					RAY	1	Linear, Operational Amplifier	Test	Test	Resistance	Capacitance	Pulses	Date	Code			Devices	Number
4559			RAY	1	Linear, Operational Amplifier	Test	Test	1500 Ohms	100E-12 F	100E-12 F	4	N/R	1	FAILED	1000 PINS 5 TO 6	100	244	13
			435	0483	SS	1500 Ohms	100E-12 F	100E-12 F	20	N/R	1	FAILED	1750 PINS 2 TO 4	100	197	13		
			435	0483	SS	1500 Ohms	100E-12 F	100E-12 F	16	N/R	1	FAILED	1500 PIN 2 TO 4	100	197	13		
			435	0483	SS	1500 Ohms	100E-12 F	100E-12 F	24	N/R	1	FAILED	2000 PINS 2 TO 4	100	197	13		
			435	0483	SS	1500 Ohms	100E-12 F	100E-12 F	28	N/R	1	FAILED	2250 PINS 2 TO 4	100	197	13		
			434	0483	GN	1500 Ohms	100E-12 F	100E-12 F	10	N/R	3	FAILED	2000 INPUT TO GND	100	252	13		
											3	FAILED	2000 INPUT TO INPUT	100	252	13		
			435	0483	SS	1500 Ohms	100E-12 F	100E-12 F	12	N/R	4	FAILED	1250 PINS 2 TO 4	100	197	13		
			435	0483	SS	1500 Ohms	100E-12 F	100E-12 F	8	N/R	1	FAILED	1250 PINS 5 TO 6	100	244	13		
			435	0483	SS	1500 Ohms	100E-12 F	100E-12 F	12	N/R	2	FAILED	1500 PINS 5 TO 6	100	244	13		
			435	0483	SS	1500 Ohms	100E-12 F	100E-12 F	16	N/R	3	FAILED	1750 PINS 5 TO 6	100	244	13		
			435	0483	SS	1500 Ohms	100E-12 F	100E-12 F	20	N/R	2	FAILED	2000 PINS 5 TO 6	100	244	13		
			435	0483	SS	1500 Ohms	100E-12 F	100E-12 F	24	N/R	1	FAILED	2250 PINS 5 TO 6	100	244	13		
			434	0483	GN	1500 Ohms	100E-12 F	100E-12 F	10	N/R	6	PASSED	2000 N/R	100	252	13		
45818			N/R	1	Digital, Arithmetic, Logic Unit									CMOS				
			030	N/R	N/R	1500 Ohms	100E-12 F	100E-12 F	1	N/R	1	FAILED	1000 N/R	103	252	13		
											1	FAILED	1000 N/R	103	252	13		
45858			N/R	1	Linear, Comparator									CMOS				
			030	N/R	N/R	1500 Ohms	100E-12 F	100E-12 F	1	N/R	1	FAILED	1000 N/R	103	252	13		

RAC ESD Database

Part Number	Part	Part ESD										Technology									
		Mfr N/R	Class	Description			Test			Number		Test		Failure Criteria		Test Remarks		General Remarks			
45858		N/R	1	Linear, Comparator	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Test Date	Test Code	Test Devices	Test Result	Test Voltage	Test Pin Combination	103	252	13		
					030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000	N/R						
4716		HIT	1	Digital, Memory, RAM, Dynamic																	
					130	0780	GN	1500 Ohms	100E-12 F	1	N/R	4	FAILED	500 EACH	PIN(+)	APTT(-)	102	252	13		
4724		FSC	1	Digital, Latch																	
					165	0676	GN	1500 Ohms	100E-12 F	1	7603	2	PASSED	400	N/R						
4741		RAY	1	Linear, Operational Amplifier																	
					392	1086	SS	1500 Ohms	100E-12 F	1	N/R	5	FAILED	850 EACE	PIN TO 4 & 11 (+ -)	19	252	13			
4801		VAR	3	Digital, Memory, RAM, Static																	
					424	0683	SS	1500 Ohms	100E-12 F	6	N/R	8	FAILED	750	PIN 5	46	149	13			
					424	0683	SS	1500 Ohms	100E-12 F	8	N/R	7	FAILED	1000	PIN 5	46	149	13			
					423	0683	SS	0	Ohms	0	F	12	N/R	2	FAILED	1500	PIN 5	46	252	4	
					423	0683	SS	0	Ohms	0	F	14	N/R	5	FAILED	1750	PIN 5	46	252	4	
					423	0683	SS	0	Ohms	0	F	16	N/R	7	FAILED	2000	PIN 5	46	252	4	
					423	0683	SS	0	Ohms	0	F	15	N/R	1	FAILED	2000	PIN 5	46	252	4	

RAC ESD Database

Part Number	Part ESD		Part		Technoogy	
	Mfr	Class	Description			
506	N/R	1	Digital, Multiplexer			CMOS
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Voltage
	030	N/R	N/R	1500 Ohms	100E-12 F	1000 N/R
						1 FAILED
						1 N/R
						1 N/R
						1 FAILED
						103
						252
						13
507A	HAR	1	Digital, Multiplexer			CMOS
	436	1186 SS	1500 Ohms	100E-12 F	7 8712	2 FAILED
						800 INPUT TO OUTPUT
						5 252
						3
	436	1186 SS	1500 Ohms	100E-12 F	17 8712	2 FAILED
						3500 OUTPUT TO GND
						5 252
						3
508	N/R	1	Digital, Multiplexer			CMOS
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1000 N/R
						103
						252
						13
508/6108	SIX	1	Digital, Multiplexer			CMOS
	436	1186 SS	1500 Ohms	100E-12 F	18 8651	5 PASSED
						4000 N/R
						5 252
						3
	436	1186 SS	1500 Ohms	100E-12 F	16 8651	5 FAILED
						3000 OUTPUT TO GND
						5 252
						3
	436	1186 SS	1500 Ohms	100E-12 F	18 8651	5 PASSED
						4000 N/R
						5 252
						3
	436	1186 SS	1500 Ohms	100E-12 F	3 8651	4 FAILED
						400 INPUT TO OUTPUT
						5 252
						3
51C86	INT	1	Digital			CMOS
	428	N/R	GN	1500 Ohms	100E-12 F	5 N/R
						10 PASSED
						1200 N/R
						13
						252
						13
5214	HYB	3	Digital, Converter, A/D-D/A			Bipolar
	436	1186 SS	1500 Ohms	100E-12 F	18 8628	5 PASSED
						4000 N/R
						5 252
						3

RAC ESD Database

Part Number	Part ESD		Part Description	Technoogy					
	Mfr Class	Class			Test Date	Test Type	Resistance	Capacitance	Number Pulses
52168	HYB	1	Digital, Converter, A/D-D/A	Bipolar	436	1186 SS	1500 Ohms	100E-12 F	13 N/R
52832	NCR	1	Digital, Memory, EPROM, EEPROM	MOS	436	1186 SS	1500 Ohms	100E-12 F	14 N/R
5309-1	MON	1	Digital, Memory, PROM	STTL	392	1086 SS	1500 Ohms	100E-12 F	1 N/R
532	N/R	1	Linear	Bipolar	030	N/R	N/R	1500 Ohms	100E-12 F
5400	FSC	1	Digital, Gate	TTL	390	N/R	GN	1500 Ohms	100E-12 F
					436	1186 SS	1500 Ohms	100E-12 F	16 N/R
					436	1186 SS	1500 Ohms	100E-12 F	14 N/R
					436	1186 SS	1500 Ohms	100E-12 F	15 N/R
					436	1186 SS	1500 Ohms	100E-12 F	12 N/R
5400	TEX	3	Digital, Gate	TTL	026	0178 SS	100 Ohms	200E-12 F	1 N/R

RAC ESD Database

Part Number	Part ESD		Part		Test										Technology			
	Number (Cont'd)	Mfr Class	Description	Test	Test Type	Resistance	Capacitance	Pulses	Date	Number	Code	Devs	Test Result	Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
5400		TEX	3	Digital, Gate	390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1	PASSED	2000 S/R		10	247	11
5400		NSC	1	Digital, Gate	026	0178 SS	100 Ohms	200E-12 F	1	N/R	4	FAILED	625 INPUT(1)(+) GND(7)(-)		6	285	13	
5400					436	1186 SS	1500 Ohms	100E-12 F	12	N/R	5	FAILED	1500 INPUT TO OUTPUT		5	252	3	
5400					245	N/R	SS	100 Ohms	N/R	1	N/R	15	FAILED	99 INPUT(+) GND(-)		4	186	21
5401		TEX	2	Digital, Gate	390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1	PASSED	2000 S/R		10	247	11
5402		FSC	2	Digital, Gate														
5402					390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1	PASSED	2000 S/R		10	247	11
5402		NSC	1	Digital, Gate														
5404		FSC	2	Digital, Inverter, Buffer	436	1186 SS	1500 Ohms	100E-12 F	12	N/R	3	FAILED	1600 INPUT TO GND		5	252	3	
5404					390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1	PASSED	2000 S/R		10	247	11

RAC ESD Database

Part Number (Cont'd)	Part ES0	Part Class	Part Description	Test										Technology		
				Test Date	Test Type	Resistance	Capacitance	Test	Test Result	Test Voltage	Test Pin	Test Combination	Failure Criteria	Test Remarks	General Remarks	
5404	TEX	2	Digital, Inverter, Buffer	390	N/R	GN	1500 Ohms	100E-12 F	5 N/R	1 N/R	1 PASSED	2000 S/R	105	247	11	
				TTL												
				030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED	2500 N/R		133	252	13	
				321	N/R	GN	1500 Ohms	100E-12 F	200 N/R	2 PASSED	1000 VCC(14)(+)	IN.(1)(-)	79	252	13	
				331	N/R	GN	1500 Ohms	200E-12 F	200 N/R	1 PASSED	1500 VCC(14)(+)	IN.(1)(-)	79	252	13	
				332	N/R	GN	1500 Ohms	N/R	200 N/R	1 PASSED	1575 VCC(14)(+)	IN.(1)(-)	79	252	13	
				333	N/R	GN	1500 Ohms	200E-12 F	1 N/R	1 FAILED	1615 VCC(14)(+)	IN.(1)(-)	77	252	13	
				334	N/R	GN	1500 Ohms	200E-12 F	1 N/R	1 PASSED	1630 VCC(14)(+)	IN.(1)(-)	79	252	13	
				335	N/R	GN	1500 Ohms	200E-12 F	2 N/R	1 FAILED	1650 VCC(14)(+)	IN.(1)(-)	121	252	13	
				336	N/R	GN	1500 Ohms	200E-12 F	3 N/R	2 FAILED	1650 VCC(14)(+)	IN.(1)(-)	121	252	13	
5404	TEX	2	Digital, Inverter, Buffer	337	N/R	GN	1500 Ohms	200E-12 F	4 N/R	1 FAILED	1650 VCC(14)(+)	IN.(1)(-)	121	252	13	
				338	N/R	GN	1500 Ohms	200E-12 F	5 N/R	1 FAILED	1650 VCC(14)(+)	IN.(1)(-)	77	252	13	
				339	N/R	GN	1500 Ohms	200E-12 F	150 N/R	1 FAILED	1650 VCC(14)(+)	IN.(1)(-)	77	252	13	
				335	N/R	GN	1500 Ohms	200E-12 F	2 N/R	1 PASSED	1650 VCC(14)(+)	IN.(1)(-)	121	252	13	
				336	N/R	GN	1500 Ohms	200E-12 F	N/R	1 PASSED	1670 VCC(14)(+)	IN.(1)(-)	79	252	13	
				337	N/R	GN	1500 Ohms	200E-12 F	3 N/R	1 FAILED	1675 VCC(14)(+)	IN.(1)(-)	121	252	13	
				337	N/R	GN	1500 Ohms	200E-12 F	2 N/R	1 FAILED	1675 VCC(14)(+)	IN.(1)(-)	77	252	13	

RAC ESD Database

Part		Part		Technology	
Number	Class	Description	Mr	Class	Technology
5434	N/R	2 Digital, Inverter, Buffer			TL
Test	Test	Test	Test	Test	Test
Source	Date	Type	Resistance	Capacitance	Pulses
337	N/R	GN	1500 Ohms	200E-12 F	200 N/R
			</		

RAC ESD Database

Part Number (Cont'd)	Part ESD		Part Description		Technology										
	Mfr	Class	2		Digital, Inverter, Buffer										
5404	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Number Pulses	Date Code	Number Devices	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks	
	341	N/R	GN	1500 Ohms	200E-12 F	1	N/R	1	FAILED	1760	VCC(14)(+)	IN.(1)(-)	77	252	13
	342	N/R	GN	1500 Ohms	200E-12 F	1	N/R	1	PASSED	1775	VCC(14)(+)	IN.(1)(-)	79	252	13
	343	N/R	GN	1500 Ohms	200E-12 F	1	N/R	1	PASSED	1800	VCC(14)(+)	IN.(1)(-)	79	252	13
								1	FAILED	1800	VCC(14)(+)	IN.(1)(-)	121	252	13
	343	N/R	GN	1500 Ohms	200E-12 F	2	N/R	1	FAILED	1800	VCC(14)(+)	IN.(1)(-)	121	252	13
								1	FAILED	1800	VCC(14)(+)	IN.(1)(-)	77	252	13
	343	N/R	GN	1500 Ohms	200E-12 F	3	N/R	1	FAILED	1800	VCC(14)(+)	IN.(1)(-)	77	252	13
	343	N/R	GN	1500 Ohms	200E-12 F	5	N/R	1	FAILED	1800	VCC(14)(+)	IN.(1)(-)	121	252	13
	343	N/R	GN	1500 Ohms	200E-12 F	9	N/R	1	FAILED	1800	VCC(14)(+)	IN.(1)(-)	121	252	13
	343	N/R	GN	1500 Ohms	200E-12 F	200	N/R	1	PASSED	1800	VCC(14)(+)	IN.(1)(-)	79	252	13
	343	N/R	GN	1500 Ohms	200E-12 F	1	N/R	2	FAILED	1800	VCC(14)(+)	IN.(1)(-)	80	252	13
								1	FAILED	1800	VCC(14)(+)	IN.(1)(-)	77	252	13
								4	PASSED	1800	VCC(14)(+)	IN.(1)(-)	79	252	13
	344	N/R	GN	1500 Ohms	200E-12 F	1	N/R	1	PASSED	1850	VCC(14)(+)	IN.(1)(-)	79	252	13
								3	FAILED	1850	VCC(14)(+)	IN.(1)(-)	121	252	13
	344	N/R	GN	1500 Ohms	200E-12 F	2	N/R	2	FAILED	1850	VCC(14)(+)	IN.(1)(-)	121	252	13
	344	N/R	GN	1500 Ohms	200E-12 F	3	N/R	1	PASSED	1850	VCC(14)(+)	IN.(1)(-)	79	252	13
	344	N/R	GN	1500 Ohms	200E-12 F	6	N/R	1	FAILED	1850	VCC(14)(+)	IN.(1)(-)	77	252	13
	345	N/R	GN	1500 Ohms	200E-12 F	1	N/R	1	FAILED	1900	VCC(14)(+)	IN.(1)(-)	77	252	13
	346	N/R	GN	1500 Ohms	100E-12 F	200	N/R	1	PASSED	2000	VCC(14)(+)	IN.(1)(-)	79	252	13

Part Number	Part ESD		Part Description	Technology			
	Mfr	Class		Failure	Test	General	Remarks
5404	N/R	2	Digital, Inverter, Buffer	121	252	13	
5405	TEX	2	Digital, Inverter, Buffer	TTL			
390	N/R	GN	1500 Ohms 100E-12 F	105	247	11	
5406	TEX	2	Digital, Line/Bus Driver	TTL			
390	N/R	GN	1500 Ohms 100E-12 F	105	247	11	
5406	NSC	2	Digital, Line/Bus Driver	TTL			
436	1186	SS	1500 Ohms 100E-12 F	5	252	3	
5406	N/R	2	Digital, Line/Bus Driver	TTL			
030	N/R	N/R	1500 Ohms 100E-12 F	103	252	13	
5407	N/R	2	Digital, Line/Bus Driver	TTL			
030	N/R	N/R	1500 Ohms 100E-12 F	103	252	13	
5408	FSC	2	Digital, Gate	TTL			
390	N/R	GN	1500 Ohms 100E-12 F	105	247	11	
5409	FSC	2	Digital, Gate	TTL			
390	N/R	GN	1500 Ohms 100E-12 F	105	247	11	

RAC ESD Database

RAC ESD Database

Part Number	Part ESD		Part Description											Technology																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	Mfr	Class												TTL																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
5410	NSC	1	Digital, Gate	Test	Test	Test	Number		Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test

Part Number	(Cont'd)	Part ESD		Part Description	Technology	
		Mfr	Class		TTL	
54121		FSC	1	Digital, Multivibrator		
		Test	Test	Test	Failure	General
		Date	Type	Resistance	Criteria	Remarks
		392	1086 SS	1500 Ohms	19	252
				100E-12 F		13
		Number	Date	Number	Test	
		Pulses	Code	Devices	Pin Combination	
		1	N/R	5	2000 EACH PIN TO 7 & 14 (+ -)	
54122		FSC	1	Digital, Multivibrator	TTL	
		390	N/R	GN	1500 Ohms	100E-12 F
				5	N/R	1 PASSED
				2000	S/R	11
		436	1186 SS	1500 Ohms	100E-12 F	
				14	N/R	2 FAILED
				2000	INPUT TO OUTPUT	3
54123		FSC	2	Digital, Multivibrator	TTL	
		390	N/R	GN	1500 Ohms	100E-12 F
				5	N/R	1 PASSED
				2000	S/R	11
54128		N/R	2	Digital, Line/Bus Driver	TTL	
		030	N/R	N/R	1500 Ohms	100E-12 F
				1	N/R	1 FAILED
				2500	N/R	13
54150		FSC	1	Digital, Multiplexer	TTL	
		436	1186 SS	1500 Ohms	100E-12 F	
				11	8704	1 FAILED
				1400	INPUT TO GND	3
54151		FSC	2	Digital, Multivibrator	TTL	
		390	N/R	GN	1500 Ohms	100E-12 F
				5	N/R	1 PASSED
				2000	S/R	11
54153		FSC	2	Digital, Multiplexer	TTL	
		390	N/R	GN	1500 Ohms	100E-12 F
				5	N/R	1 PASSED
				2000	S/R	11

RAC ESD Database

RAC ESD Database

Part Number	Part ESD		Part Description	Technology			
	Mfr	Class		TTL			
54153	N/R	3	Digital, Multiplexer				
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Number Pulses	Number Devices
	245	N/R	SS	100 Ohms	N/R	1	N/R
						15	FAILED
						78	INPUT(+) GND(-)
54154	N/R	2	Digital, Decoder				
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R
						1	FAILED
							2500 N/R
5416	TEX	2	Digital, Inverter, Buffer				
	390	N/R	GN	1500 Ohms	100E-12 F	5	N/R
						1	PASSED
							2000 S/R
5416	FSC	2	Digital, Inverter, Buffer				
	390	N/R	GN	1500 Ohms	100E-12 F	5	N/R
						1	PASSED
							2000 S/R
54161	TEX	2	Digital, Counter/Divider				
	390	N/R	GN	1500 Ohms	100E-12 F	5	N/R
						1	PASSED
							2000 S/R
54174	TEX	2	Digital, Flip-flop				
	390	N/R	GN	1500 Ohms	100E-12 F	5	N/R
						1	PASSED
							2000 S/R
54174	FSC	2	Digital, Flip-flop				
	390	N/R	GN	1500 Ohms	100E-12 F	5	N/R
						1	PASSED
							2000 S/R
54175	TEX	2	Digital, Flip-flop				
	390	N/R	GN	1500 Ohms	100E-12 F	5	N/R
						1	PASSED
							2000 S/R

Failure Test Criteria

General Remarks

47 186 21

103 252 13

105 247 11

105 247 11

105 247 11

105 247 11

105 247 11

105 247 11

105 247 11

105 247 11

105 247 11

105 247 11

105 247 11

105 247 11

105 247 11

RAC ESD Database

Part Number	Part ESD		Part Description	Technology			
	Mfr	Class		TTL			
54175	FSC	2	Digital, Flip-Flop				
				Test	Test	Test	General
				Source	Type	Resistance	Criteria
				390	N/R	GN 1500 Ohms	105
						100E-12 F	247
						1 PASSED	11
						2000 S/R	
54182	N/R	1	Digital, Arithmetic, Carry Generator				
				030	N/R	N/R 1500 Ohms	103
						100E-12 F	252
						1 FAILED	13
						1000 N/R	252
						2500 N/R	13
5420	FSC	2	Digital, Gate				
				390	N/R	GN 1500 Ohms	105
						100E-12 F	247
						1 PASSED	11
						2000 S/R	
5420	TEX	2	Digital, Gate				
				029	N/R	N/R 1500 Ohms	102
						100E-12 F	189
						1 FAILED	13
						2230 N/R	
				390	N/R	GN 1500 Ohms	105
						100E-12 F	247
						1 PASSED	11
						2000 S/R	
5421	SIG	2	Digital, Gate				
				003	1175	SS 0 Ohms	102
						100E-12 F	252
						1 FAILED	13
						700 INPUT(+) PR. SUPPLY(-)	
				004	1175	SS 0 Ohms	102
						125E-12 F	233
						1 FAILED	13
						1400 INPUT	
5423	TEX	2	Digital, Gate				
				390	N/R	GN 1500 Ohms	105
						100E-12 F	247
						1 PASSED	11
						2000 S/R	
5425	N/R	2	Digital, Gate				
				030	N/R	N/R 1500 Ohms	103
						100E-12 F	252
						1 FAILED	13
						2500 N/R	

RAC ESD Database

Part Number	Part ESD		Part		Technology	
	Mfr	Class	Description			
5427	FSC	2	Digital, Gate		TTL	
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Number
	390	N/R	GN	1500 Ohms	100E-12 F	5 N/R
						1 PASSED
						2000 S/R
						19
						252
						11
5427	TEX	2	Digital, Gate		TTL	
	390	N/R	GN	1500 Ohms	100E-12 F	5 N/R
						1 PASSED
						2000 S/R
						11
54273	TEX	1	Digital, Flip-Flop		TTL	
	392	1086 SS	1500 Ohms	100E-12 F	1 N/R	5 FAILED
						2000 EACH PIN TO 10 & 20 (+ -)
						13
5430	FSC	2	Digital, Gate		TTL	
	390	N/R	GN	1500 Ohms	100E-12 F	5 N/R
						1 PASSED
						2000 S/R
						11
5430	TEX	2	Digital, Gate		TTL	
	390	N/R	GN	1500 Ohms	100E-12 F	5 N/R
						1 PASSED
						2000 S/R
						11
5437	N/R	2	Digital, Inverter, Buffer		TTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						2500 N/R
						13
5437	FSC	2	Digital, Inverter, Buffer		TTL	
	390	N/R	GN	1500 Ohms	100E-12 F	5 N/R
						1 PASSED
						2000 S/R
						11
5437	TEX	2	Digital, Inverter, Buffer		TTL	
	390	N/R	GN	1500 Ohms	100E-12 F	5 N/R
						1 PASSED
						2000 S/R
						11

RAC ESD Database

Part Number	Part ESD		Part		Technology	
	Mfr	Class	Description			
5438	N/R	2	Digital, Gate		TTL	
	Test	Test	Test	Test	Test	General
	Source	Date	Type	Resistance	Capacitance	Pin Combination
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED 2500 N/R
5440	FSC	2	Digital, Inverter, Buffer		TTL	
390	N/R	GN	1500 Ohms	100E-12 F	5 N/R	1 PASSED 2000 S/R
5440	TEX	2	Digital, Inverter, Buffer		TTL	
390	N/R	GN	1500 Ohms	100E-12 F	5 N/R	1 PASSED 2000 S/R
5442	FSC	2	Digital, Decoder		TTL	
390	N/R	GN	1500 Ohms	100E-12 F	5 N/R	1 PASSED 2000 S/R
5445	N/R	2	Digital, Decoder		TTL	
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED 2500 N/R
5446	N/R	2	Digital, Line/Bus Driver		TTL	
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED 2500 N/R
5450	TEX	2	Digital, Gate		TTL	
390	N/R	GN	1500 Ohms	100E-12 F	5 N/R	1 PASSED 2000 S/R
5451	TEX	2	Digital, Gate		TTL	
390	N/R	GN	1500 Ohms	100E-12 F	5 N/R	1 PASSED 2000 S/R

RAC ESD Database

Part Number	Part ESD		Part		Technology									
	Mfr TEX	Class 2	Description Digital, Gate											TTL
5453	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	General
	Source	Date	Type	Resistance	Capacitance	Pulses	Code	Devices	Number	Result	Voltage	Pin	Combination	Remarks
	390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1	PASSED	2000	S/R			11
5454	TEX	2	Digital, Gate											TTL
	390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1	PASSED	2000	S/R			11
5470	TEX	2	Digital, Flip-Flop											TTL
	390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1	PASSED	2000	S/R			11
5472	TEX	2	Digital, Flip-Flop											TTL
	390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1	PASSED	2000	S/R			11
5472	NSC	1	Digital, Flip-Flop											TTL
	436	1186	SS	1500 Ohms	100E-12 F	12	N/R	5	FAILED	1600	INPUT TO GND			3
5473	NSC	1	Digital, Flip-Flop											TTL
	436	0488	SS	1500 Ohms	100E-12 F	12	8726	2	FAILED	1500	INPUT TO OUTPUT			3
5473	TEX	2	Digital, Flip-Flop											TTL
	390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1	PASSED	2000	S/R			11

RAC ESD Database

Part Number	Part ESD		Part		Technology	
	Mfr	Class	Description			
5474	FSC	2	Digital, Flip-Flop		TTL	
	Test	Test	Test	Number	Test	Test
	Source	Date	Type	Resistance	Capacitance	Pulses
	390	N/R	GN	1500 Ohms	100E-12 F	5 N/R
						1 PASSED
						2000 S/R
5474	TEX	2	Digital, Flip-Flop		TTL	
	390	N/R	GN	1500 Ohms	100E-12 F	5 N/R
						1 PASSED
						2000 S/R
5476	NSC	1	Digital, Flip-Flop		TTL	
	392	1086 SS	1500 Ohms	100E-12 F	1 N/R	5 FAILED
						2000 EACH PIN TO 5 & 13 (+ -)
5476	TEX	2	Digital, Flip-Flop		TTL	
	390	N/R	GN	1500 Ohms	100E-12 F	5 N/R
						1 PASSED
						2000 S/R
5483	N/R	3	Digital, Error Detect/Correct, Parity/Carry Gen		TTL	
	245	N/R	SS	100 Ohms	N/R	1 N/R
						15 FAILED
						65 INPUT(+) GND(-)
5483	TEX	2	Digital, Error Detect/Correct, Parity/Carry Gen		TTL	
	390	N/R	GN	1500 Ohms	100E-12 F	5 N/R
						1 PASSED
						2000 S/R
5483	FSC	2	Digital, Error Detect/Correct, Parity/Carry Gen		TTL	
	390	N/R	GN	1500 Ohms	100E-12 F	5 N/R
						1 PASSED
						2000 S/R
5486	FSC	2	Digital, Gate		TTL	
	390	N/R	GN	1500 Ohms	100E-12 F	5 N/R
						1 PASSED
						2000 S/R

RAC ESD Database

Part Number (Cont'd)	Part ESD		Part Description	Technology	
	Mfr	Class		Failure	Test
5486	TEX	2	Digital, Gate	TTL	
	Test	Test	Test	Test	Test
	Source	Date	Type	Resistance	Capacitance
390	N/R	GN	1500 Ohms	100E-12 F	5 N/R
					1 PASSED
					2000 S/R
54C00	NSC	1	Digital, Gate	CMOS	
393	0485 SS	1500 Ohms	100E-12 F	1 N/R	4 FAILED
					2000 2(INPUT) 7(GND)
54C02	NSC	1	Digital, Gate	CMOS	
393	0285 SS	1500 Ohms	100E-12 F	1 N/R	4 FAILED
					2000 3(INPUT) 14(VCC)
54C04	NSC	2	Digital, Inverter, Buffer	CMOS	
393	0285 SS	1500 Ohms	100E-12 F	1 N/R	2 FAILED
					4000 11(INPUT) 10(OUTPUT)
54C08	NSC	2	Digital, Gate	CMOS	
393	0285 SS	1500 Ohms	100E-12 F	1 N/R	3 FAILED
					4000 1(INPUT) 3(OUTPUT)
54C14	NSC	2	Digital, Inverter, Schmitt Trigger	CMOS	
393	0784 SS	1500 Ohms	100E-12 F	1 N/R	1 FAILED
					2250 N/R
54C157	NSC	2	Digital, Multiplexer	CMOS	
393	0385 SS	1500 Ohms	100E-12 F	1 N/R	2 FAILED
					2500 2(INPUT) 8(GND)
54C163	NSC	2	Digital, Counter/Divider	CMOS	
393	0385 SS	1500 Ohms	100E-12 F	1 N/R	4 FAILED
					3000 6(INPUT) 8(GND)

RAC ESD Database

Part Number	Part ESD		Part		Technology											
	Mfr	Class	Description		Failure Criteria	Test Remarks	General Remarks									
54C164	NSC	2	Digital, Register, Shift		CMOS											
	Test	Date	Type	Resistance	Capacitance	Pulses	Number	Date	Code	Devices	Test	Result	Voltage	Pin	Combination	General Remarks
393	0984	SS	1500 Ohms	100E-12 F	1	N/R	2	FAILED	2500	8(INPUT)	7(GND)	102	252	13		
54C174	NSC	2	Digital, Flip-Flop													
393	0485	SS	1500 Ohms	100E-12 F	1	N/R	2	FAILED	2500	1(INPUT)	15(VCC)	102	252	13		
54C193	NSC	1	Digital, Counter/Divider													
393	0385	SS	1500 Ohms	100E-12 F	1	N/R	2	FAILED	1500	9(INPUT)	16(VCC)	102	252	13		
54C30	NSC	2	Digital, Gate													
393	0285	SS	1500 Ohms	100E-12 F	1	N/R	4	FAILED	3000	1(INPUT)	7(GND)	102	252	13		
54C42	NSC	1	Digital, Decoder													
393	0984	SS	1500 Ohms	100E-12 F	1	N/R	2	FAILED	1500	12(INPUT)	8(GND)	102	252	13		
54C52	NSC	1	Digital, Line/Bus Driver													
393	0882	SS	1500 Ohms	100E-12 F	1	N/R	1	FAILED	400	N/R		102	252	13		
54C74	NSC	2	Digital, Flip-Flop													
393	0285	SS	1500 Ohms	100E-12 F	1	N/R	4	FAILED	3000	12(INPUT)	8(OUTPUT)	102	252	13		
54C76	NSC	2	Digital, Flip-Flop													
393	0385	SS	1500 Ohms	100E-12 F	1	N/R	2	FAILED	4000	4(INPUT)	5(VCC)	102	252	13		

RAC ESD Database

Part Number	Part ESD		Part Description	Technology			
	Mfr	Class		Failure Criteria	Test Remarks	General Remarks	
54C83	NSC	2	Digital, Gate	CMOS			
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Number	Test Date
	393	0385	SS	1500 Ohms	100E-12 F	1 N/R	2 FAILED
						2500 4(INPUT) 5(VCC)	102 252 13
54C85	NSC	1	Linear, Comparator	CMOS			
	393	0385	SS	1500 Ohms	100E-12 F	1 N/R	2 FAILED
						2000 1(INPUT) 8(GND)	102 252 13
54C901	NSC	1	Digital, Inverter, Buffer	CMOS			
	393	0285	SS	1500 Ohms	100E-12 F	1 N/R	3 FAILED
						2000 4(INPUT) 7(GND)	102 252 13
54C902	NSC	1	Digital, Inverter, Buffer	CMOS			
	393	0285	SS	1500 Ohms	100E-12 F	1 N/R	2 FAILED
						2000 2(INPUT) 1(OUTPUT)	102 252 13
	436	1186	SS	1500 Ohms	100E-12 F	5 N/R	2 FAILED
						600 INPUT TO OUTPUT	5 252 3
54C906	NSC	2	Digital, Inverter, Buffer	CMOS			
	393	0285	SS	1500 Ohms	100E-12 F	1 N/R	2 FAILED
						3000 4(INPUT) 3(OUTPUT)	102 252 13
54C922	NSC	1	Digital, Encoder	CMOS			
	393	0181	SS	1500 Ohms	100E-12 F	1 N/R	1 FAILED
						2000 N/R	102 252 13
54F00	SIG	1	Digital, Gate	Advanced STTL			
	436	0688	SS	1500 Ohms	100E-12 F	12 8741	5 FAILED
						1500 INPUT TO OUTPUT	5 252 3

RAC ESD Database

Part Number	Part ESD		Part Description		Technology	
	Mfr	Class	Type	Gate	Advanced	STTL
54F00	FSC	1	Digital, Gate			
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses
	436	0788	SS	1500 Ohms	100E-12 F	7 N/R
	393	0784	SS	1500 Ohms	100E-12 F	1 N/R
54F02	SLG	1	Digital, Gate			
	436	0788	SS	1500 Ohms	100E-12 F	7 8737
54F02	FSC	1	Digital, Gate			
	393	0784	SS	1500 Ohms	100E-12 F	1 N/R
	436	1186	SS	1500 Ohms	100E-12 F	7 N/R
54F04	FSC	1	Digital, Inverter, Buffer			
	393	0784	SS	1500 Ohms	100E-12 F	1 N/R
	436	1186	SS	1500 Ohms	100E-12 F	11 N/R
54F08	FSC	1	Digital, Gate			
	393	0984	SS	1500 Ohms	100E-12 F	1 N/R
54F11	FSC	1	Digital, Gate			
	393	0984	SS	1500 Ohms	100E-12 F	1 N/R

Test	Test Result	Test Voltage	Test Pin Combination	Failure Criteria	Test Remarks	General Remarks
5	FAILED	800	INPUT TO GROUND	5	252	3
1	FAILED	2000	1(INPUT) 7(GND)	102	252	13
5	FAILED	800	INPUT TO OUTPUT	5	252	3
1	FAILED	1000	8(INPUT) 10(OUTPUT)	102	252	13
5	FAILED	800	INPUT TO OUTPUT	5	252	3
5	FAILED	800	INPUT TO GND	5	252	3
5	FAILED	800	INPUT TO OUTPUT	5	252	3
1	FAILED	1500	9(INPUT) 7(GND)	102	252	13
1	FAILED	1400	VCC TO INPUT	5	252	3
2	FAILED	500	10(INPUT) 7(GND)	102	252	13
1	FAILED	200	10(INPUT) 7(GND)	102	252	13

RAC ESD Database

Part Number	Part ESD		Part Description		Technology																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
	Mfr	Class	1	Digital, Decoder	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test

RAC ESD Database

Part Number	Part ESD		Part Description	Technology											
	Mfr	Class		Advanced STTL											
54F192	FSC	1	Digital, Arithmetic, Carry Generator												
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Number		Date	Test Result	Test Voltage	Test Pin	Test Combination	Failure Criteria	Test Remarks	General Remarks
	393	0284	SS	1500 Ohms	100E-12 F	1	N/R	1	FAILED	2000	N/R		102	147	13
	Advanced STTL														
54F194	FSC	2	Digital, Register, Shift												
	393	0184	SS	1500 Ohms	100E-12 F	1	N/R	1	FAILED	3000	1(INPUT)	8(GND)	102	252	13
	Advanced STTL														
	Advanced STTL														
54F20	FSC	1	Digital, Gate												
	436	1186	SS	1500 Ohms	100E-12 F	12	N/R	1	FAILED	1600	INPUT TO	GND	5	252	3
	436	1186	SS	1500 Ohms	100E-12 F	7	N/R	5	FAILED	800	INPUT TO	GND	5	252	3
	Advanced STTL														
54F21	FSC	3	Digital, Gate												
	436	1186	SS	1500 Ohms	100E-12 F	18	8617	1	PASSED	4000	N/R		5	252	3
	Advanced STTL														
	Advanced STTL														
54F240	FSC	2	Digital, Inverter, Buffer												
	393	0284	SS	1500 Ohms	100E-12 F	1	N/R	1	FAILED	3000	15(INPUT)	10(GND)	102	252	13
	Advanced STTL														
	Advanced STTL														
54F244	FSC	1	Digital, Inverter, Buffer												
	393	0784	SS	1500 Ohms	100E-12 F	1	8348	1	FAILED	350	8(INPUT)	10(GND)	102	252	13
	Advanced STTL														
	Advanced STTL														
54F253	FSC	1	Digital, Multiplexer												
	393	0984	SS	1500 Ohms	100E-12 F	1	8338	1	FAILED	750	11(INPUT)	8(GND)	102	252	13
	Advanced STTL														
	Advanced STTL														

RAC ESD Database

Part ESD				Technology						
Part Number	Class	Description		Advanced STTL	General					
			Digital, Gate							
Test Source	Test Type	Test Resistance	Test Capacitance	Number Pulses	Test Voltage	Test Result	Pin Combination	Failure Criteria	Test Remarks	General Remarks
35	186 SS	500 Ohms	100E-12 F	10 8534	1	FAILED	1200 INPUT TO GND	5	252	3
Advanced STTL										
54532	510	1	Digital, Gate							
435	186 SS <td>500 Ohms<td>100E-12 F<td>12 875</td><td>4</td><td>FAILED</td><td>1500 + INPUT TO - OUTPUT</td><td>5</td><td>252</td><td>3</td></td></td>	500 Ohms <td>100E-12 F<td>12 875</td><td>4</td><td>FAILED</td><td>1500 + INPUT TO - OUTPUT</td><td>5</td><td>252</td><td>3</td></td>	100E-12 F <td>12 875</td> <td>4</td> <td>FAILED</td> <td>1500 + INPUT TO - OUTPUT</td> <td>5</td> <td>252</td> <td>3</td>	12 875	4	FAILED	1500 + INPUT TO - OUTPUT	5	252	3
					4	FAILED	1500 INPUT TO GROUND	5	252	3
Advanced STTL										
54532	510	1	Digital, Gate							
393	186 SS <td>500 Ohms<td>100E-12 F</td><td>1 N/R</td><td>1</td><td>FAILED</td><td>1500 9(INPUT) 7(GND)</td><td>102</td><td>252</td><td>13</td></td>	500 Ohms <td>100E-12 F</td> <td>1 N/R</td> <td>1</td> <td>FAILED</td> <td>1500 9(INPUT) 7(GND)</td> <td>102</td> <td>252</td> <td>13</td>	100E-12 F	1 N/R	1	FAILED	1500 9(INPUT) 7(GND)	102	252	13
435	186 SS <td>500 Ohms<td>100E-12 F</td><td>13 N/R</td><td>5</td><td>FAILED</td><td>1800 INPUT TO GND</td><td>5</td><td>252</td><td>3</td></td>	500 Ohms <td>100E-12 F</td> <td>13 N/R</td> <td>5</td> <td>FAILED</td> <td>1800 INPUT TO GND</td> <td>5</td> <td>252</td> <td>3</td>	100E-12 F	13 N/R	5	FAILED	1800 INPUT TO GND	5	252	3
435	186 SS <td>500 Ohms<td>100E-12 F</td><td>11 N/R</td><td>5</td><td>FAILED</td><td>1400 INPUT TO GND</td><td>5</td><td>252</td><td>3</td></td>	500 Ohms <td>100E-12 F</td> <td>11 N/R</td> <td>5</td> <td>FAILED</td> <td>1400 INPUT TO GND</td> <td>5</td> <td>252</td> <td>3</td>	100E-12 F	11 N/R	5	FAILED	1400 INPUT TO GND	5	252	3
Advanced STTL										
54532	510	1	Digital, Gate							
435	186 SS <td>500 Ohms<td>100E-12 F</td><td>11 N/R</td><td>5</td><td>FAILED</td><td>1400 INPUT TO GND</td><td>5</td><td>252</td><td>3</td></td>	500 Ohms <td>100E-12 F</td> <td>11 N/R</td> <td>5</td> <td>FAILED</td> <td>1400 INPUT TO GND</td> <td>5</td> <td>252</td> <td>3</td>	100E-12 F	11 N/R	5	FAILED	1400 INPUT TO GND	5	252	3
Advanced STTL										
54532	510	1	Digital, Gate							
435	186 SS <td>500 Ohms<td>100E-12 F</td><td>5 N/R</td><td>5</td><td>FAILED</td><td>600 INPUT TO OUTPUT</td><td>5</td><td>252</td><td>3</td></td>	500 Ohms <td>100E-12 F</td> <td>5 N/R</td> <td>5</td> <td>FAILED</td> <td>600 INPUT TO OUTPUT</td> <td>5</td> <td>252</td> <td>3</td>	100E-12 F	5 N/R	5	FAILED	600 INPUT TO OUTPUT	5	252	3
393	186 SS <td>500 Ohms<td>100E-12 F</td><td>1 N/R</td><td>1</td><td>FAILED</td><td>500 14(INPUT) 20(GND)</td><td>102</td><td>252</td><td>13</td></td>	500 Ohms <td>100E-12 F</td> <td>1 N/R</td> <td>1</td> <td>FAILED</td> <td>500 14(INPUT) 20(GND)</td> <td>102</td> <td>252</td> <td>13</td>	100E-12 F	1 N/R	1	FAILED	500 14(INPUT) 20(GND)	102	252	13
435	186 SS <td>500 Ohms<td>100E-12 F</td><td>9 N/R</td><td>5</td><td>FAILED</td><td>1000 INPUT TO GND</td><td>5</td><td>252</td><td>3</td></td>	500 Ohms <td>100E-12 F</td> <td>9 N/R</td> <td>5</td> <td>FAILED</td> <td>1000 INPUT TO GND</td> <td>5</td> <td>252</td> <td>3</td>	100E-12 F	9 N/R	5	FAILED	1000 INPUT TO GND	5	252	3
435	186 SS <td>500 Ohms<td>100E-12 F</td><td>18 N/R</td><td>5</td><td>PASSED</td><td>4000 N/R</td><td>5</td><td>252</td><td>3</td></td>	500 Ohms <td>100E-12 F</td> <td>18 N/R</td> <td>5</td> <td>PASSED</td> <td>4000 N/R</td> <td>5</td> <td>252</td> <td>3</td>	100E-12 F	18 N/R	5	PASSED	4000 N/R	5	252	3
435	186 SS <td>500 Ohms<td>100E-12 F</td><td>8 N/R</td><td>5</td><td>FAILED</td><td>900 INPUT TO GND</td><td>5</td><td>252</td><td>3</td></td>	500 Ohms <td>100E-12 F</td> <td>8 N/R</td> <td>5</td> <td>FAILED</td> <td>900 INPUT TO GND</td> <td>5</td> <td>252</td> <td>3</td>	100E-12 F	8 N/R	5	FAILED	900 INPUT TO GND	5	252	3

RAC ESD Database

Part Number	Part ESD		Part Description	Technology											
	Mtr	Class		Advanced STTL											
				Advanced STTL											
54F373	FSC	1	Digital, Latch	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Voltage	Test Result	Test Voltage	Test Pin Combination	Test Failure Criteria	Test Remarks	General Remarks
				436	1186	SS	1500 Ohms	100E-12 F	5 N/R	5 FAILED	600	INPUT TO GND	5	252	3
				436	1186	SS	1500 Ohms	100E-12 F	7 N/R	5 FAILED	800	INPUT TO GND	5	252	3
				436	1186	SS	1500 Ohms	100E-12 F	12 N/R	5 FAILED	1500	INPUT TO GND	5	252	3
				436	1186	SS	1500 Ohms	100E-12 F	18 N/R	5 PASSED	4000	N/R	5	252	3
54F374	FSC	2	Digital, Flip-Flop	436	1186	SS	1500 Ohms	100E-12 F	7 N/R	5 FAILED	800	INPUT TO GND	5	252	3
				393	0284	SS	1500 Ohms	100E-12 F	1 N/R	1 FAILED	3000	4 INPUT TO 10(GND)	102	252	13
54F521	FSC	1	Linear, Comparator	Advanced STTL											
				436	1186	SS	1500 Ohms	100E-12 F	9 8551	5 FAILED	1000	INPUT TO GND	5	252	3
									1 FAILED	1000	INPUT TO GND	5	252	3	
									5 FAILED	1000	INPUT TO GND	5	252	3	
				436	1186	SS	1500 Ohms	100E-12 F	7 8551	5 FAILED	800	INPUT TO GND	5	252	3
				436	1186	SS	1500 Ohms	100E-12 F	3 8551	1 FAILED	400	INPUT TO GND	5	252	3
				436	1186	SS	1500 Ohms	100E-12 F	11 8551	5 FAILED	1400	INPUT TO GND	5	252	3
				436	1186	SS	1500 Ohms	100E-12 F	9 8551	5 FAILED	1000	INPUT TO GND	5	252	3
															436

RAC ESD Database

Part Number	Part ESD		Part Description	Technology	
	Mfr	Class		Advanced	STTL
	FSC	2	Digital, Gate		
Test					
Source	Date	Type	Resistance	Capacitance	Test
393	0184	SS	1500 Ohms	100E-12 F	1 FAILED
Number Date Number Test Result Voltage Pin Combination					
1 N/R 1 FAILED 2500 11(INPUT) 7(GND)					
Failure Test General					
Criteria Remarks Remarks					
102 252 13					
Advanced STTL					
54F74	FSC	1	Digital, Flip-Flop		
393	0984	SS	1500 Ohms	100E-12 F	1 FAILED
400 4(INPUT) 7(GND)					
436	1186	SS	1500 Ohms	100E-12 F	5 FAILED
700 INPUT TO OUTPUT					
5 252 3					
436	1186	SS	1500 Ohms	100E-12 F	5 FAILED
700 INPUT TO GND					
5 252 3					
436	1186	SS	1500 Ohms	100E-12 F	5 FAILED
500 INPUT TO GND					
5 252 3					
436	1186	SS	1500 Ohms	100E-12 F	1 FAILED
400 INPUT TO GND					
5 252 3					
436	1186	SS	1500 Ohms	100E-12 F	5 FAILED
1000 INPUT TO GND					
5 252 3					
436	1186	SS	1500 Ohms	100E-12 F	5 FAILED
1000 INPUT TO GND					
5 252 3					
Advanced STTL					
54F74	SIG	1	Digital, Flip-Flop		
436	1186	SS	1500 Ohms	100E-12 F	5 FAILED
1200 INPUT TO GND					
5 252 3					
436	1186	SS	1500 Ohms	100E-12 F	5 FAILED
1600 INPUT TO OUTPUT					
5 252 3					
436	1186	SS	1500 Ohms	100E-12 F	5 PASSED
400C N/R					
5 252 3					
436	1186	SS	1500 Ohms	100E-12 F	5 FAILED
800 INPUT TO GND					
5 252 3					
436	1186	SS	1500 Ohms	100E-12 F	1 FAILED
1600 INPUT TO GND					
5 252 3					
436	1186	SS	1500 Ohms	100E-12 F	5 FAILED
1800 INPUT TO OUTPUT					
5 252 3					
436	1186	SS	1500 Ohms	100E-12 F	1 FAILED
1200 INPUT TO OUTPUT					
5 252 3					

RAC ESD Database

Part Number 54F7+	Part Esd		Part		Technology											
	Mfr SIG	Class 1	Description		Advanced STTL											
			Test Date	Test Type	Resistance	Capacitance	Pulses	Code	Number	Date	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
			436	1186 SS	1500 Ohms	100E-12 F	10	N/R	5	FAILED	1200	INPUT	5	252	3	
54H00	FSC	2	Digital, Gate													
			390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1	PASSED	2000	S/R	105	247	11
54H00	N/R	3	Digital, Gate													
			245	N/R	SS	100 Ohms	N/R	1	N/R	15	FAILED	93	INPUT(+) GND(-)	47	186	21
54H01	TEX	2	Digital, Gate													
			390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1	PASSED	2000	S/R	105	247	11
54H04	TEX	2	Digital, Inverter, Buffer													
			390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1	PASSED	2000	S/R	105	247	11
54H04	FSC	2	Digital, Inverter, Buffer													
			390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1	PASSED	2000	S/R	105	247	11
54H04	RCA	1	Digital, Inverter, Buffer													
			436	1186 SS	1500 Ohms	100E-12 F	14	N/R	2	FAILED	2000	INPUT TO GND	5	252	3	
54H10	TEX	2	Digital, Gate													
			390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1	PASSED	2000	S/R	105	247	11

RAC ESD Database

Part Number	(Cont'd)	Part ESD		Part	Description										Technology		
		Mfr Class	FSC		Type	Test	Resistance	Capacitance	Pulses	Date Code	Number Devices	Test Result	Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
54H10		FSC	2	Digital, Gate	N/R	GN	1500 Ohms	100E-12 F	5 N/R	1	PASSED	2000 S/R	105	247	11		
54H183		N/R	3	Digital, Arithmetic, Adder, Full	N/R	SS	100 Ohms	N/R	1 N/R	15	FAILED	98 INPUT(+) GND(-)	HTTL	47	186	21	
54H20		TEX	2	Digital, Gate													
390		N/R	GN	1500 Ohms	100E-12 F	5 N/R	1	PASSED	2000 S/R	105	247	11					
54H20		FSC	2	Digital, Gate									HTTL				
390		N/R	GN	1500 Ohms	100E-12 F	5 N/R	1	PASSED	2000 S/R	105	247	11					
54H30		FSC	2	Digital, Gate									HTTL				
390		N/R	GN	1500 Ohms	100E-12 F	5 N/R	1	PASSED	2000 S/R	105	247	11					
54H40		TEX	2	Digital, Inverter, Buffer									HTTL				
390		N/R	GN	1500 Ohms	100E-12 F	5 N/R	1	PASSED	2000 S/R	105	247	11					
54H76		TEX	2	Digital, Flip-Flop									HTTL				
390		N/R	GN	1500 Ohms	100E-12 F	5 N/R	1	PASSED	2000 S/R	105	247	11					
54HC00		MOT	1	Digital, Gate									HMOS				
397		N/R	SS	1500 Ohms	100E-12 F	5 N/R	10	FAILED	1800 INPUT TO GND (+ -)	54	252	7					

RAC ESD Database

Part Number	Part ESQ	Part Description	Technology									
			HMOS									
54HC00			1 Digital, Gate									
Test	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Number Date	Test Result	Test Voltage	Test Pin Combination	Failure Criteria	Test Remarks	General Remarks
397	N/R	SS	1500 Ohms	100E-12 F	5	N/R	10 FAILED	3'00	OUTPUT TO GND (+ -)	54	252	7
							10 FAILED	2100	INPUT TO OUTPUT (+ -)	54	252	7
							10 PASSED	9000	VCC TO GND (+ -)	102	252	7
							10 PASSED	9000	GND TO VCC (+ -)	102	252	7
54HC00												
	RCA	2	Digital, Gate							HMOS		
397	N/R	SS	1500 Ohms	100E-12 F	1	N/R	10 FAILED	2800	INPUT TO GND (+ -)	54	252	7
							10 FAILED	6125	OUTPUT TO GND (+ -)	54	252	7
397	N/R	SS	1500 Ohms	100E-12 F	5	N/R	10 FAILED	2050	INPUT TO OUTPUT (+ -)	54	252	7
							10 PASSED	9000	VCC TO GND (+ -)	102	252	7
							10 PASSED	9000	GND TO VCC (+ -)	102	252	7
54HC00												
	NSC	2	Digital, Gate							HMOS		
397	N/R	SS	1500 Ohms	100E-12 F	5	N/R	10 FAILED	3100	INPUT TO GND (+ -)	54	252	7
							10 FAILED	5300	OUTPUT TO GND (+ -)	54	252	7
							10 FAILED	2500	INPUT TO OUTPUT (+ -)	54	252	7
							10 PASSED	9000	VCC TO GND (+ -)	102	252	7
							10 PASSED	9000	GND TO VCC (+ -)	102	252	7
54HC00												
	TEX	2	Digital, Gate							HMOS		
397	N/R	SS	1500 Ohms	100E-12 F	5	N/R	10 PASSED	9000	INPUT TO GND (+ -)	102	252	7
							10 FAILED	5800	OUTPUT TO GND (+ -)	54	252	7
							10 FAILED	2500	INPUT TO OUTPUT (+ -)	54	252	7
							10 PASSED	9000	VCC TO GND (+ -)	102	252	7
							10 PASSED	9000	GND TO VCC (+ -)	102	252	7
54HC04												
	TEX	1	Digital, Inverter, Buffer							HMOS		
436	1186	SS	1500 Ohms	100E-12 F	12	864.8	2 FAILED	1600	OUTPUT TO GND	5	252	3

RAC ESD Database

Part Number	Part ESD		Part		Description		Technology	
	Mfr	Class	Test	Type	Resistance	Capacitance	Number	Date
54HC14	NSC	1	Digital, Inverter, Buffer					
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Test Number	Test Date
	436	1186	SS	1500 Ohms	100E-12 F	9	8627	
							1	FAILED
							1000	INPUT TO OUTPUT
							5	252
							3	
54HC161	TEX	1	Digital, Counter/Divider					
	436	1186	SS	1500 Ohms	100E-12 F	2	8535	
							2	FAILED
							300	INPUT TO OUTPUT
							5	252
							3	
54HC390	MOT	1	Digital, Counter/Divider					
	436	1186	SS	1500 Ohms	100E-12 F	10	8703	
							1	FAILED
							1200	INPUT TO GND
							5	252
							3	
54HC42	MOT	1	Digital, Decoder					
	436	0588	SS	1500 Ohms	100E-12 F	12	N/R	
							2	FAILED
							1500	INPUT TO COMMON
							5	252
							3	
	436	0588	SS	1500 Ohms	100E-12 F	9	N/R	
							2	FAILED
							1000	INPUT TO OUTPUT
							5	252
							3	
	436	1186	SS	1500 Ohms	100E-12 F	9	N/R	
							2	FAILED
							1000	INPUT TO GND
							5	252
							3	
54L03	NSC	1	Digital, Gate					
	436	1186	SS	1500 Ohms	100E-12 F	11	N/R	
							2	FAILED
							1400	INPUT TO GND
							5	252
							3	
54L04	N/R	2	Digital, Inverter, Buffer					
	361	N/R	GN	1500 Ohms	100E-12 F	200	N/R	
							11	PASSED
							2000	GND.(1)(+); IN.(7)(-)
							78	252
							13	
	362	N/R	GN	1500 Ohms	100E-12 F	200	N/R	
							1	PASSED
							2250	GND.(1)(+); IN.(7)(-)
							78	252
							13	

R² ~ ESD Database

Part Number	Part	Description										Technology								
		Part ESD		2 Digital, Inverter, Buffer								LTTL								
		Mfr	Class	Test	Test	Test	Resistance	Capacitance	Test	Number	Date	Code	Devices	Test	Result	Voltage	Pin Combination	Failure Criteria	Test	General Remarks
N/R		N/R	GN	1500 Ohms	100E-12 F	100E-12 F	100E-12 F	100E-12 F	10	N/R	200	N/R	1	FAILED	2500	GND.(1)(+)	IN.(7)(-)	78	252	13
363		N/R	GN	1500 Ohms	100E-12 F	100E-12 F	100E-12 F	100E-12 F	200	N/R	1	PASSED	1	PASSED	2500	GND.(1)(+)	IN.(7)(-)	78	252	13
364		N/R	GN	1500 Ohms	100E-12 F	100E-12 F	100E-12 F	100E-12 F	1	N/R	1	FAILED	1	FAILED	2750	GND.(1)(+)	IN.(7)(-)	29	77	13
364		N/R	GN	1500 Ohms	100E-12 F	100E-12 F	100E-12 F	100E-12 F	3	N/R	1	FAILED	1	FAILED	2750	GND.(1)(+)	IN.(7)(-)	29	77	13
364		N/R	GN	1500 Ohms	100E-12 F	100E-12 F	100E-12 F	100E-12 F	5	N/R	1	FAILED	1	FAILED	2750	GND.(1)(+)	IN.(7)(-)	42	76	13
364		N/R	GN	1500 Ohms	100E-12 F	100E-12 F	100E-12 F	100E-12 F	8	N/R	1	FAILED	1	FAILED	2750	GND.(1)(+)	IN.(7)(-)	42	76	13
364		N/R	GN	1500 Ohms	100E-12 F	100E-12 F	100E-12 F	100E-12 F	50	N/R	1	FAILED	1	FAILED	2750	GND.(1)(+)	IN.(7)(-)	42	76	13
364		N/R	GN	1500 Ohms	100E-12 F	100E-12 F	100E-12 F	100E-12 F	75	N/R	1	FAILED	1	FAILED	2750	GND.(1)(+)	IN.(7)(-)	29	77	13
364		N/R	GN	1500 Ohms	100E-12 F	100E-12 F	100E-12 F	100E-12 F	125	N/R	1	FAILED	1	FAILED	2750	GND.(1)(+)	IN.(7)(-)	42	76	13
364		N/R	GN	1500 Ohms	100E-12 F	100E-12 F	100E-12 F	100E-12 F	175	N/R	1	FAILED	1	FAILED	2750	GND.(1)(+)	IN.(7)(-)	42	76	13
364		N/R	GN	1500 Ohms	100E-12 F	100E-12 F	100E-12 F	100E-12 F	1	PASSED	1	PASSED	1	PASSED	2750	GND.(1)(+)	IN.(7)(-)	78	252	13
364		N/R	GN	1500 Ohms	100E-12 F	100E-12 F	100E-12 F	100E-12 F	200	N/R	11	PASSED	11	PASSED	2750	GND.(1)(+)	IN.(7)(-)	78	252	13
365		N/R	GN	1500 Ohms	100E-12 F	100E-12 F	100E-12 F	100E-12 F	200	N/R	1	PASSED	1	PASSED	3000	GND.(1)(+)	IN.(7)(-)	78	252	13
365		N/R	GN	1500 Ohms	100E-12 F	100E-12 F	100E-12 F	100E-12 F	5	N/R	1	FAILED	1	FAILED	3000	GND.(1)(+)	IN.(7)(-)	42	76	13
366		N/R	GN	1500 Ohms	100E-12 F	100E-12 F	100E-12 F	100E-12 F	10	N/R	1	FAILED	1	FAILED	3250	GND.(1)(+)	IN.(7)(-)	42	76	13
367		N/R	GN	1500 Ohms	100E-12 F	100E-12 F	100E-12 F	100E-12 F	1	N/R	4	FAILED	4	FAILED	3500	GND.(1)(+)	IN.(7)(-)	78	252	13
		N/R	GN	1500 Ohms	100E-12 F	100E-12 F	100E-12 F	100E-12 F	2	FAILED	2	FAILED	2	FAILED	3500	GND.(1)(+)	IN.(7)(-)	29	77	13
		N/R	GN	1500 Ohms	100E-12 F	100E-12 F	100E-12 F	100E-12 F	6	FAILED	6	FAILED	6	FAILED	3500	GND.(1)(+)	IN.(7)(-)	42	76	13
367		N/R	GN	1500 Ohms	100E-12 F	100E-12 F	100E-12 F	100E-12 F	4	N/R	2	FAILED	2	FAILED	3500	GND.(1)(+)	IN.(7)(-)	42	76	13

RAC ESD Database

Part Number 54L04	Part ESD		Part		Technology									
	Mfr N/R	Class N/R	Description		LTL									
			2 Digital, Inverter, Buffer											
Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	
Source	Date	Type	Resistance	Capacitance	Pulses	Date	Number	Devices	Result	Voltage	Pin Combination	Failure	General	
367	N/R	GN	1500 Ohms	100E-12 F	8	N/R	1	1	FAILED	3500	GND.(1)(+) IN.(7)(-)	42	76	
367	N/R	GN	1500 Ohms	100E-12 F	25	N/R	1	1	FAILED	3500	GND.(1)(+) IN.(7)(-)	78	252	
367	N/R	GN	1500 Ohms	100E-12 F	200	N/R	8	8	PASSED	3500	GND.(1)(+) IN.(7)(-)	78	252	
368	N/R	GN	1500 Ohms	100E-12 F	1	N/R	2	2	FAILED	4000	GND.(1)(+) IN.(7)(-)	78	252	
							4	4	FAILED	4000	GND.(1)(+) IN.(7)(-)	29	77	
							7	7	FAILED	4000	GND.(1)(+) IN.(7)(-)	42	76	
368	N/R	GN	1500 Ohms	100E-12 F	50	N/R	1	1	FAILED	4000	GND.(1)(+) IN.(7)(-)	78	252	
368	N/R	GN	1500 Ohms	100E-12 F	1	N/R	8	8	PASSED	4000	GND.(1)(+) IN.(7)(-)	78	252	
369	N/R	GN	1500 Ohms	100E-12 F	1	N/R	10	10	FAILED	4250	GND.(1)(+) IN.(7)(-)	42	76	
							2	2	FAILED	4250	GND.(1)(+) IN.(7)(-)	78	252	
							5	5	FAILED	4250	GND.(1)(+) IN.(7)(-)	29	77	
369	N/R	GN	1500 Ohms	100E-12 F	8	N/R	1	1	FAILED	4250	GND.(1)(+) IN.(7)(-)	29	77	
369	N/R	GN	1500 Ohms	100E-12 F	200	N/R	3	3	PASSED	4250	GND.(1)(+) IN.(7)(-)	78	252	
370	N/R	GN	1500 Ohms	100E-12 F	1	N/R	2	2	FAILED	4500	GND.(1)(+) IN.(7)(-)	29	77	
							7	7	FAILED	4500	GND.(1)(+) IN.(7)(-)	78	252	
							8	8	FAILED	4500	GND.(1)(+) IN.(7)(-)	42	76	
							3	3	PASSED	4500	GND.(1)(+) IN.(7)(-)	78	252	
371	N/R	GN	1500 Ohms	100E-12 F	1	N/R	7	7	FAILED	5000	GND.(1)(+) IN.(7)(-)	42	76	
							5	5	FAILED	5000	GND.(1)(+) IN.(7)(-)	78	252	
							4	4	FAILED	5000	GND.(1)(+) IN.(7)(-)	29	77	
371	N/R	GN	1500 Ohms	100E-12 F	2	N/R	1	1	FAILED	5000	GND.(1)(+) IN.(7)(-)	78	252	
371	N/R	GN	1500 Ohms	100E-12 F	6	N/R	1	1	FAILED	5000	GND.(1)(+) IN.(7)(-)	42	76	

RAC ESD Database

Part Number (Cont'd)	Part ESD		Part		Technology	
	Mfr	Class	Description			
54L04	N/R	2	Digital, Inverter, Buffer		L TTL	
Test	Test	Test	Test	Test	Test	Test
Source	Date	Type	Resistance	Capacitance	Number	Test
371	N/R	GN	1500 Ohms	100E-12 F	7 N/R	1 FAILED
						5000 GND.(1)(+) IN.(7)(-)
371	N/R	GN	1500 Ohms	100E-12 F	175 N/R	1 FAILED
						5000 GND.(1)(+) IN.(7)(-)
371	N/R	GN	1500 Ohms	100E-12 F	200 N/R	1 FAILED
						5000 GND.(1)(+) IN.(7)(-)
372	N/R	GN	1500 Ohms	100E-12 F	200 N/R	1 FAILED
						5500 GND.(1)(+) IN.(7)(-)
373	N/R	GN	1500 Ohms	100E-12 F	1 N/R	3 FAILED
						5750 GND.(1)(+) IN.(7)(-)
						5750 GND.(1)(+) IN.(7)(-)
						5750 GND.(1)(+) IN.(7)(-)
374	N/R	GN	1500 Ohms	100E-12 F	1 N/R	1 FAILED
						6000 GND.(1)(+) IN.(7)(-)
374	N/R	GN	1500 Ohms	100E-12 F	25 N/R	1 FAILED
						6000 GND.(1)(+) IN.(7)(-)
375	N/R	GN	1500 Ohms	100E-12 F	20 N/R	1 FAILED
						6500 GND.(1)(+) IN.(7)(-)
375	N/R	GN	1500 Ohms	100E-12 F	25 N/R	1 FAILED
						6500 GND.(1)(+) IN.(7)(-)
376	N/R	GN	1500 Ohms	100E-12 F	1 N/R	1 FAILED
						7000 GND.(1)(+) IN.(7)(-)
376	N/R	GN	1500 Ohms	100E-12 F	2 N/R	1 FAILED
						7000 GND.(1)(+) IN.(7)(-)
376	N/R	GN	1500 Ohms	100E-12 F	5 N/R	1 FAILED
						7000 GND.(1)(+) IN.(7)(-)
377	N/R	GN	1500 Ohms	100E-12 F	50 N/R	1 FAILED
						7200 GND.(1)(+) IN.(7)(-)
378	N/R	GN	1500 Ohms	100E-12 F	1 N/R	1 FAILED
						7500 GND.(1)(+) IN.(7)(-)
379	N/R	GN	1500 Ohms	100E-12 F	1 N/R	1 FAILED
						8000 GND.(1)(+) IN.(7)(-)
54L74	N/R	3	Digital, Flip-Flop		L TTL	
245	N/R	SS	100 Ohms	N/R	1 N/R	15 FAILED
						77 INPUT(+) GND(-)
						47 186 21

RAC ESD Database

Part Number	Part	Part ESD		Description		Technology											
		Mfr	Class			LSTTL											
54LS00		NSC	1	Digital, Gate													
		Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	General
		Source	Date	Type	Resistance	Capacitance	Pulses	Date	Code	Devices	Result	Voltage	Pin	Combination	Failure	Test	Remarks
		383	N/R	SS	1500 Ohms	100E-12 F	1	N/R	1	N/R	1 FAILED	8132	IN.(+)	APTT(-)	49	188	8
											1 FAILED	771	VCC(+)	APTT(-)	49	188	8
		026	0178	SS	100 Ohms	200E-12 F	1	N/R	1	N/R	1 FAILED	366	INPUT(1)(+)	GND(7)(-)	6	285	13
		436	1186	SS	1500 Ohms	100E-12 F	7	N/R	5	N/R	5 FAILED	800	INPUT	TO GND	5	252	3
54LS00		SIG	2	Digital, Gate											LSTTL		
		026	0178	SS	100 Ohms	200E-12 F	1	N/R	4	N/R	4 FAILED	513	INPUT(1)(+)	GND(7)(-)	6	285	13
54LS00		N/R	1	Digital, Gate											LSTTL		
		030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1 FAILED	1500	N/R		103	252	13
		245	N/R	SS	100 Ohms	N/R	1	N/R	15	N/R	15 FAILED	85	INPUT(+)	GND(-)	47	186	21
									15	N/R	15 FAILED	83	INPUT(+)	GND(-)	47	186	21
									15	N/R	15 FAILED	80	INPUT(+)	GND(-)	47	186	21
									15	N/R	15 FAILED	80	INPUT(+)	GND(-)	47	186	21
54LS02		N/R	1	Digital, Gate											LSTTL		
		030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1 FAILED	1500	N/R		103	252	13
54LS02		FSC	1	Digital, Gate											LSTTL		
		436	1186	SS	1500 Ohms	100E-12 F	5	N/R	1	N/R	1 FAILED	600	INPUT	TO GND	5	252	3
54LS03		N/R	1	Digital, Gate											LSTTL		
		030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1 FAILED	1500	N/R		103	252	13

RAC ESD Database

Part Number	Part	Part ESD										Technology								
		Mfr	Class	Description							LSTTL									
54LS04		N/R	1	Digital, Inverter, Buffer																
		Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	General							
		Source	Date	Type	Resistance	Capacitance	Pulses	Number	Date	Code	Devices	Result	Voltage	Pin	Combination	Failure	Test	Criteria	Remarks	Remarks
		030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	1500	N/R	N/R	103	252	13		13
54LS04		FSC	1	Digital, Inverter, Buffer														LSTTL		3
		436	1186	SS	1500 Ohms	100E-12 F	8	N/R	1	N/R	1	FAILED	900	INPUT TO GND		5	252			3
54LS04		NSC	1	Digital, Inverter, Buffer														LSTTL		8
		383	N/R	SS	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	1263	OUT.(+) APTT(-)		49	188			
		436	1186	SS	1500 Ohms	100E-12 F	7	N/R	5	N/R	5	FAILED	800	INPUT TO GND		5	252			3
54LS04		TEX	1	Digital, Inverter, Buffer														LSTTL		3
		436	1186	SS	1500 Ohms	100E-12 F	4	N/R	1	N/R	1	FAILED	500	INPUT TO OUTPUT		5	252			
54LS05		N/R	1	Digital, Inverter, Buffer														LSTTL		13
		430	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	1500	N/R		103	252			
		384	N/R	SS	1000 Ohms	200E-12 F	1	N/R	1	N/R	1	FAILED	900	EACH PIN(+)		12	99			24
																9	104			24
																11	106			24
54LS08		N/R	1	Digital, Gate														LSTTL		13
		030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	1500	N/R		103	252			
54LS08		SIG	1	Digital, Gate														LSTTL		3
		436	1186	SS	1500 Ohms	100E-12 F	5	N/R	1	N/R	1	FAILED	600	INPUT TO GND		5	252			

RAC ESD Database

Part Number	Part ESD		Part		Technology	
	Mfr	Class	Description			
54LS09	N/R	1	Digital, Gate		LSTTL	
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1500 N/R
						13
						252
						103
						252
						13
54LS10	N/R	1	Digital, Gate		LSTTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1500 N/R
						13
						252
						103
54LS10	NSC	1	Digital, Gate		LSTTL	
	435	1186 SS	1500 Ohms	100E-12 F	7 N/R	5 FAILED
						800 INPUT TO GND
						252
						3
54LS107	N/R	1	Digital, Flip-Flop		LSTTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1500 N/R
						13
						252
						103
54LS109	N/R	1	Digital, Flip-Flop		LSTTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1500 N/R
						13
						252
						103
54LS11	N/R	1	Digital, Gate		LSTTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1500 N/R
						13
						252
						103
54LS112	N/R	1	Digital, Flip-Flop		LSTTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1500 N/R
						13
						252
						103
54LS12	N/R	1	Digital, Gate		LSTTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1500 N/R
						13
						252
						103

RAC ESD Database

Part Number	Part ESD		Part		Technology	
	Mfr	Class	Description			
54LS123	N/R	1	Digital, Multivibrator		LSTTL	
	Test Source	Test Date	Test Resistance	Test Capacitance	Number Pulses	Number Devices
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						Test Voltage
						1500 N/R
						Test Result
						1 FAILED
						Test Combination
						1500 N/R
						Failure Criteria
						103
						Test Remarks
						252
						General Remarks
						13
54LS123	MOT	1	Digital, Multivibrator		LSTTL	
436	1186 SS	1500 Ohms	100E-12 F	7 N/R	5 FAILED	800 INPUT TO GND
						5 252 3
436	1186 SS	1500 Ohms	100E-12 F	8 N/R	5 FAILED	900 OUTPUT TO GND
						5 252 3
436	1186 SS	1500 Ohms	100E-12 F	5 N/R	1 FAILED	600 INPUT TO OUTPUT
						5 252 3
436	1186 SS	1500 Ohms	100E-12 F	7 N/R	5 FAILED	800 INPUT TO GND
						5 252 3
436	1186 SS	1500 Ohms	100E-12 F	4 N/R	5 FAILED	500 INPUT TO GND
						5 252 3
436	1186 SS	1500 Ohms	100E-12 F	3 N/R	5 FAILED	400 INPUT TO OUTPUT
						5 252 3
54LS123	TEX	1	Digital, Multivibrator		LSTTL	
436	1186 SS	1500 Ohms	100E-12 F	10 N/R	1 FAILED	1200 INPUT TO GND
						5 252 3
54LS125	N/R	1	Digital, Inverter, Buffer		LSTTL	
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1500 N/R
						103 252 13
54LS125	MOT	1	Digital, Inverter, Buffer		LSTTL	
436	1186 SS	1500 Ohms	100E-12 F	7 N/R	1 FAILED	800 INPUT TO GND
						5 252 3
54LS126	N/R	1	Digital, Inverter, Buffer		LSTTL	
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1500 N/R
						103 252 13

RAC ESD Database

Part Number (Cont'd)	Part ESD Mfr Class	Part Description	Technology													
			LSTTL													
54LS151	W03	1 Digital, Multiplexer	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Number Pulses	Date Code	Number Devices	Test Result	Test Voltage	Test Pin Combination	Failure Criteria	Test Remarks	General Remarks
			128	0381	SS	1000 Ohms	200E-12 F	5	N/R	1	FAILED	1133	INPUTS(+) GROUND(-)	109	143	13
54LS151	NSC	1 Digital, Multiplexer	128	0381	SS	1000 Ohms	200E-12 F	5	N/R	1	FAILED	1127	INPUTS(+) GROUND(-)	109	143	13
										1	FAILED	1033	INPUTS(+) GROUND(-)	109	143	13
										1	FAILED	950	INPUTS(+) GROUND(-)	109	143	13
										1	FAILED	1042	INPUTS(+) GROUND(-)	109	143	13
54LS151	N/R	1 Digital, Multiplexer	070	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1075	INPUTS(+) GROUND(-)	109	143	13
										1	FAILED	700	INPUT(15)(+) GROUND(-)	109	252	13
										3	FAILED	1000	INPUT(15)(+) GROUND(-)	109	252	13
										1	FAILED	1100	INPUT(15)(+) GROUND(-)	109	252	13
54LS153	N/R	1 Digital, Multiplexer	070	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13
54LS153	N/R	1 Digital, Multiplexer	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13
54LS153	SIG	2 Digital, Multiplexer	2-5	N/P	SS	100 Ohms	N/R	1	N/R	15	FAILED	95	INPUT(+) GND(-)	47	186	21
54LS153	SIG	2 Digital, Multiplexer	128	0381	SS	1000 Ohms	200E-12 F	5	N/R	5	PASSED	1500	INPUTS(+) GROUND(-)	109	286	13

RAC ESD Database

Part Number	Part ESD		Part		Description						Technology	
	Mr.	Class	Type	Resistance	Capacitance	Pulses	Date Code	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
54LS157	N/R	N/R	1000 Ohms	100E-12 F	1 N/R	1 N/R	1 FAILED	1500 V	N/R	103	252	13
54LS155	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 N/R	1 FAILED	1500 V	N/R	103	252	13
54LS157	AND	2	Digital, Multiplexer							LSTTL		
026	0291 SS	100	Ohms	200E-12 F	1 N/R	1 N/R	4 FAILED	433 INPUT(15)(+) GND(8)(-)		50	285	13
54LS157	NSC	1	Digital, Multiplexer							LSTTL		
436	0488 SS	1500	Ohms	100E-12 F	1 N/R	1 N/R	5 FAILED	200 INPUT TO OUTPUT		5	252	3
54LS157	N/R	1	Digital, Multiplexer							LSTTL		
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 N/R	1 FAILED	1500 V	N/R	103	252	13
54LS160	N/R	1	Digital, Counter/Divider							LSTTL		
031	N/A	N/R	1500 Ohms	100E-12 F	1 N/R	1 N/R	1 FAILED	1500 V	N/R	103	252	13
54LS161	N/R	1	Digital, Counter/Divider							LSTTL		
030	N/P	N/R	1500 Ohms	100E-12 F	1 N/R	1 N/R	1 FAILED	1500 V	N/R	103	252	13
54LS161	SIG	1	Digital, Counter/Divider							LSTTL		
436	1186 SS	1500	Ohms	100E-12 F	9 N/R	9 N/R	5 FAILED	1000 INPUT TO GND		5	252	3

RAC ESD Database

Part Number	Part ESD		Part	Description		Technology
	Mfr	Class		MOT	1	
54LS161A					Digital, Counter/Divider	LSTTL
	Test	Test	Test	Test	Test	Test
	Source	Date	Type	Resistance	Capacitance	Pulses
436	1186	SS	1500	Ohms	100E-12	F
	Number	Date	Code	Devices	Result	Voltage
	6	8612	1	FAILED	700	INPUT TO GND
54LS162	N/R	1	Digital, Counter/Divider			LSTTL
030	N/R	N/R	1500	Ohms	100E-12	F
	1	N/R	1	FAILED	1500	N/R
54LS163	N/R	1	Digital, Counter/Divider			LSTTL
030	N/R	N/R	1500	Ohms	100E-12	F
	1	N/R	1	FAILED	1500	N/R
54LS164	TEX	2	Digital, Register, Shift			LSTTL
390	N/R	GN	1500	Ohms	100E-12	F
	5	N/R	1	PASSED	2000	S/R
54LS164	N/R	1	Digital, Register, Shift			LSTTL
030	N/R	N/R	1500	Ohms	100E-12	F
	1	N/R	1	FAILED	1500	N/R
54LS164	SIG	1	Digital, Register, Shift			LSTTL
026	0281	SS	100	Ohms	200E-12	F
	1	N/R	4	FAILED	228	INPUT(1)(+) OUT(7)(-)
54LS165	N/R	1	Digital, Register, Shift			LSTTL
030	N/R	N/R	1500	Ohms	100E-12	F
	1	N/R	1	FAILED	1500	N/R
54LS166	N/R	1	Digital, Register, Shift			LSTTL
030	N/R	N/R	1500	Ohms	100E-12	F
	1	N/R	1	FAILED	1500	N/R

RAC ESD Database

Part Number	(Cont'd)	Part ESD		Part Description														Technology	
		Mfr Class	Test Type		Test Resistance	Test Capacitance	Pulses	Date Code	Number Devices	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks				
54LS166		TEX	1	Digital, Register, Shift	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Test Date Code	Test Number Devices	Test Result	Test Voltage	Test Pin Combination	Test Failure Criteria	Test Remarks	Test General Remarks	
					436	1186	SS	1500 Ohms	100E-12 F	100E-12 F	17 N/R	5 N/R	5 FAILED	3500 INPUT TO GND	5	252	3		
					436	1186	SS	1500 Ohms	100E-12 F	100E-12 F	5 N/R	5 N/R	5 FAILED	600 INPUT TO OUTPUT	5	252	3		
					436	1186	SS	1500 Ohms	100E-12 F	100E-12 F	9 N/R	1 FAILED	1000 INPUT TO GND	5	252	3			
					MOT 1 Digital, Register, Shift														
					436	1186	SS	1500 Ohms	100E-12 F	100E-12 F	3 N/R	1 FAILED	400 INPUT TO GND	5	252	3			
54LS166					436	1186	SS	1500 Ohms	100E-12 F	100E-12 F	1 N/R	5 FAILED	200 INPUT TO GND	5	252	3			
					436	1186	SS	1500 Ohms	100E-12 F	100E-12 F	5 N/R	5 FAILED	600 INPUT TO OUTPUT	5	252	3			
					436	1186	SS	1500 Ohms	100E-12 F	100E-12 F	6 N/R	5 FAILED	700 INPUT TO OUTPUT	5	252	3			
					436	1186	SS	1500 Ohms	100E-12 F	100E-12 F	5 N/R	1 FAILED	600 INPUT TO OUTPUT	5	252	3			
					436	1186	SS	1500 Ohms	100E-12 F	100E-12 F	4 N/R	5 FAILED	500 INPUT TO OUTPUT	5	252	3			
					LSTTL														
54LS173					N/R	1	Digital, Flip-Flop	LSTTL											
					030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED	1500 N/R	103	252	13				
54LS174					N/R	1	Digital, Flip-Flop	LSTTL											
					030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED	1500 N/R	103	252	13				
54LS175					N/R	1	Digital, Flip-Flop	LSTTL											
					030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED	1500 N/R	103	252	13				

RAC ESD Database

Part Number (Cont'd)	Part ESD		Description	Technology	
	Mfr Class	SIG		LS TTL	LS TTL
54LS175	1 Digital, Flip-Flop				
	Test	Test	Test	Test	Test
	Source Date	Type	Resistance	Capacitance	Pulses
436	1186	SS	1500 Ohms	100E-12 F	18 N/R
	5	PASSED	4000	N/R	
	Failure Criteria	Test	Remarks	General	Remarks
	5	252			3
					3
54LS175	FSC	1	Digital, Flip-Flop	LSTTL	
390	N/R	GN	1500 Ohms	100E-12 F	5 N/R
	1	PASSED	2000	S/R	
	105	247			11
436	1186	SS	1500 Ohms	100E-12 F	9 N/R
	1	FAILED	1000	INPUT TO OUTPUT	
	5	252			3
436	1186	SS	1500 Ohms	100E-12 F	4 N/R
	1	FAILED	500	INPUT TO GND	
	5	252			3
54LS181	N/R	1	Digital, Arithmetic, Logic Unit	LSTTL	
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
	1	FAILED	1500	N/R	
	103	252			13
54LS192	N/R	1	Digital, Counter/Divider	LSTTL	
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
	1	FAILED	1500	N/R	
	103	252			13
245	N/R	SS	100 Ohms	N/R	1 N/R
	15	FAILED	59	INPUT(+) GND(-)	
	47	186			21
54LS193	N/R	1	Digital, Counter/Divider	LSTTL	
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
	1	FAILED	1500	N/R	
	103	252			13
54LS194	N/R	1	Digital, Register, Shift	LSTTL	
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
	1	FAILED	1500	N/R	
	103	252			13

RAC ESD Database

Part Number	Part ESD		Part		Technology	
	Mfr	Class	Description			
54LS196	N/R	N/R	1 Digital, Counter/Divider		LSTTL	
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1500 N/R
						13
54LS197	N/F	1	Digital, Counter/Divider		LSTTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1500 N/R
						13
54LS20	N/R	1	Digital, Gate		LSTTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1500 N/R
						13
54LS20	S13	1	Digital, Gate		LSTTL	
	436	1186 SS	1500 Ohms	100E-12 F	9 N/R	5 FAILED
						1000 INPUT TO INPUT
						5
						252
						3
54LS21	N/R	1	Digital, Gate		LSTTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1500 N/R
						13
54LS221	N/R	1	Digital, Multivibrator		LSTTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1500 N/R
						13
54LS240	N/R	1	Digital, Line/Bus Driver		LSTTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1500 N/R
						13
54LS244	N/R	1	Digital, Line/Bus Driver		LSTTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1500 N/R
						13

RAC ESD Database

Part Number (Cont'd)	Part ESD		Part		Description				Technology			
	Mf.	Class	1	Digital, Line/Bus Driver	Test	Test	Test	Test	Test	Test	Test	Test
54LS244	TEX	1186 SS	1500 Ohms	100E-12 F	11 N/R	1	FAILED	1400 INPUT TO GND	5	252	3	
54LS244	SIG	1	Digital, Line/Bus Driver						LSTTL			
436	1186 SS	1500 Ohms	100E-12 F	5 N/R	1	FAILED	600 INPUT TO GND	5	252	3		
54LS245	N/R	1	Digital, Transceiver						LSTTL			
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1	FAILED	1500 N/R	103	252	13	
54LS245	TEX	1	Digital, Transceiver						LSTTL			
436	1186 SS	1500 Ohms	100E-12 F	6 N/R	1	FAILED	700 INPUT TO OUTPUT	5	252	3		
54LS251	N/R	1	Digital, Multiplexer						LSTTL			
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1	FAILED	1500 N/R	103	252	13	
54LS253	N/R	1	Digital, Multiplexer						LSTTL			
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1	FAILED	1300 N/R	103	252	13	
54LS253	FSC	1	Digital, Multiplexer						LSTTL			
436	1186 SS	1500 Ohms	100E-12 F	6 N/R	5	FAILED	700 INPUT TO GND	5	252	3		
436	1186 SS	1500 Ohms	100E-12 F	5 N/R	1	FAILED	600 INPUT TO GND	5	252	3		

RAC ESD Database

Part Number	(Cont'd)	Part ESD		Part Description	Part	Technology						
		Mfr	Class			Failure Criteria	Test Remarks	General Remarks				
54LS253		MOT	1	Digital, Multiplexer							LSTTL	
		Test Source	Test Date	Test Type	Resis	Test Capacitance	Number Pulses	Date Code	Devices	Test Voltage	Pin Combination	
		436	1186	SS	1500 Ohms	100E-12 F	7	N/R	1	FAILED	800 INPUT TO GND	5 252 3
		436	1186	SS	1500 Ohms	100E-12 F	10	N/R	5	FAILED	1200 INPUT TO GND	5 252 3
		436	1186	SS	1500 Ohms	100E-12 F	4	N/R	1	FAILED	500 INPUT TO GND	5 252 3
		436	1186	SS	1500 Ohms	100E-12 F	5	N/R	5	FAILED	600 INPUT TO GND	5 252 3
		436	1186	SS	1500 Ohms	100E-12 F	4	N/R	5	FAILED	500 INPUT TO GND	5 252 3
54LS253		NSC	1	Digital, Multiplexer								LSTTL
		436	1186	SS	1500 Ohms	100E-12 F	4	N/R	5	FAILED	500 INPUT TO GND	5 252 3
		436	1186	SS	1500 Ohms	100E-12 F	3	N/R	1	FAILED	400 INPUT TO OUTPUT	5 252 3
		436	1186	SS	1500 Ohms	100E-12 F	8	N/R	1	FAILED	900 INPUT TO GND	5 252 3
54LS257		N/R	1	Digital, Multiplexer								LSTTL
		030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500 N/R	103 252 13
54LS259		N/R	1	Digital, Latch								LSTTL
		030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500 N/R	103 252 13
54LS26		MOT	1	Digital, Line/Bus Driver								LSTTL
		436	1186	SS	1500 Ohms	100E-12 F	7	8534	1	FAILED	800 INPUT TO GND	5 252 3

RAC ESD Database

Part Number	Part ESD		Part Description	Technology										
	Mfr	Class			Test	Test	Test	Test	Test	Test	Test	Test	Test	General
54LS266	N/R	N/R	1 Digital, Gate	LSTTL	Source	Date	Type	Resistance	Capacitance	Number	Date	Code	Devices	Pin Combination
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13
54LS27	N/R	N/R	1 Digital, Gate	LSTTL										
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13
54LS279	N/R	N/R	1 Digital, Latch	LSTTL										
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13
54LS280	N/R	N/R	1 Digital, Error Detect/Correct, Parity/Carry Gen	LSTTL										
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13
54LS283	N/R	N/R	1 Digital, Arithmetic, Adder, Full	LSTTL										
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13
54LS295	N/R	N/R	1 Digital, Register, Shift	LSTTL										
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13
54LS298	N/R	N/R	1 Digital, Multiplexer	LSTTL										
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13
54LS299	N/R	N/R	1 Digital, Register, Shift	LSTTL										
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13

RAC ESD Database

Part Number	Part ESD		Part Description		Technology								
	Mfr	Class	Test	Test	Failure Criteria	General Remarks							
54LS209	TEF	1	Digital, Register, Shift		LSTTL								
	Test Date	Test Type	Test Resistance	Test Capacitance	Number Pulses	Number Devices	Test Result	Test Voltage	Pin Combination	Failure Criteria	General Remarks		
	436	1186 SS	1500 Ohms	100E-12 F	4 N/R	2	2	FAILED	500 INPUT TO OUTPUT	5	252	3	
54LS30	N/R	1	Digital, Gate							LSTTL			
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1	1	FAILED	1500 N/R	103	252	13
54LS32	N/R	1	Digital, Gate							LSTTL			
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1	1	FAILED	1500 N/R	103	252	13
54LS32	FSC	1	Digital, Gate							LSTTL			
	436	1186 SS	1500 Ohms	100E-12 F	6 N/R	1	1	FAILED	700 INPUT	5	252	3	
54LS33	N/R	1	Digital, Multiplexer							LSTTL			
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1	1	FAILED	1500 N/R	103	252	13
54LS35	NSC	1	Digital, Line/Bus Driver							LSTTL			
	436	1186 SS	1500 Ohms	100E-12 F	18 9426	1	1	PASSED	4000 N/R	5	252	3	
	436	1186 SS	1500 Ohms	100E-12 F	7 9426	1	1	FAILED	800 INPUT TO OUTPUT	5	252	3	
						5	5	FAILED	800 INPUT TO OUTPUT	5	252	3	
54LS35A	NSC	2	Digital Line/Bus Driver							LSTTL			
	436	1186 SS	1500 Ohms	100E-12 F	17 N/R	5	5	FAILED	3500 N/R	5	252	3	

RAC ESD Database

Part Number	Part ESD		Part		Technology																						
	Mfr	Class	Description																								
54LS367	N/R	1	Digital, Line/Bus Driver		LSTTL																						
<table> <tr> <th>Test</th><th>Test</th><th>Test</th><th>Test</th><th>Test</th><th>Test</th><th>Test</th></tr> <tr> <th>Source</th><th>Date</th><th>Type</th><th>Resistance</th><th>Capacitance</th><th>Pulses</th><th>Number</th></tr> <tr> <td>030</td><td>N/R</td><td>N/R</td><td>1500 Ohms</td><td>100E-12 F</td><td>1 N/R</td><td>1</td></tr> </table>							Test	Test	Test	Test	Test	Test	Test	Source	Date	Type	Resistance	Capacitance	Pulses	Number	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1
Test	Test	Test	Test	Test	Test	Test																					
Source	Date	Type	Resistance	Capacitance	Pulses	Number																					
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1																					
54LS368	N/R	1	Digital, Line/Bus Driver		LSTTL																						
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1																					
54LS37	N/R	1	Digital, Inverter, Buffer		LSTTL																						
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1																					
54LS37	SIG	1	Digital, Inverter, Buffer		LSTTL																						
436	1186 SS	1500 Ohms	100E-12 F	5 N/R	1	1																					
54LS373	N/R	1	Digital, Latch		LSTTL																						
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1																					
54LS373	TEX	1	Digital, Latch		LSTTL																						
436	1186 SS	1500 Ohms	100E-12 F	9 N/R	1	1																					
436	1186 SS	1500 Ohms	100E-12 F	3 N/R	1	1																					
54LS374	N/R	1	Digital, Flip-Flop		LSTTL																						
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1																					

RAC ESD Database

Part Number (Cont'd)	Part ESD		Part		Description					Technology						
	Mfr	Class	Mfr	Class	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test
54LS37	MOT	3	Digital, Flip-Flop													

RAC ESD Database

Part Number (Cont'd)	Part ESD		Part Description	Technology										
	Mfr	Class		Failure Criteria	Test Remarks	General Remarks								
54LS40	NSC	1	Digital, Inverter, Buffer											
	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test
	Source	Date	Type	Resistance	Capacitance	Pulses	Code	Devices	Result	Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
	436	0588	SS	1500 Ohms	100E-12 F	9	N/R	5	FAILED	1000	INPUT TO OUTPUT	5	252	3
								5	FAILED	1000	INPUT TO COMMON	5	252	3
	436	1186	SS	1500 Ohms	100E-12 F	11	N/R	5	FAILED	1400	INPUT TO GND	5	252	3
54LS42	N/R		1	Digital, Decoder								LSTTL		
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13
54LS51	N/R		1	Digital, Gate								LSTTL		
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13
54LS54	N/R		1	Digital, Gate								LSTTL		
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13
54LS57	N/R		1	Digital, Register, Flip								LSTTL		
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13
54LS89	TEX		1	Linear, Comparator								LSTTL		
	436	1186	SS	1500 Ohms	100E-12 F	5	9624	2	FAILED	600	INPUT TO OUTPUT	5	252	3
54LS97	TEX		1	Digital, Counter/Divider								LSTTL		
	436	1186	SS	1500 Ohms	100E-12 F	7	N/R	2	FAILED	800	INPUT TO GND	5	252	3

RAC ESD Database

Part Number	Part ESD		Part Description	Mfr Class	SIG	Test				Technology			
						Test	Test Type	Resistance	Capacitance	Number	Date	Devices	General
54LS73			1 Digital, Flip-Flop			Test				LS TTL			
						Source	Date	Type	Resistance	Pulses	Code	Test	Failure Criteria
54LS74			1 Digital, Flip-Flop			436	1186	SS	1500 Ohms	100E-12 F	15	8519	5 FAILED
						436	1186	SS	1500 Ohms	100E-12 F	10	8519	5 FAILED
54LS74			1 Digital, Flip-Flop			333	N/R	SS	1500 Ohms	100E-12 F	1	N/R	1 FAILED
						436	1186	SS	1500 Ohms	100E-12 F	8	N/R	1 FAILED
54LS74			2 Digital, Flip-Flop			436	1186	SS	1500 Ohms	100E-12 F	12	N/R	1 FAILED
						436	1186	SS	1500 Ohms	100E-12 F	15	N/R	1 FAILED
54LS74			1 Digital, Flip-Flop			030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1 FAILED
						436	1186	SS	1500 Ohms	100E-12 F	15	N/R	5 FAILED
54LS75			1 Digital, Latch			030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1 FAILED
						436	1186	SS	1500 Ohms	100E-12 F	15	N/R	5 FAILED

RAC ESD Database

Part Number	Part ESD		Part Description	Technology										
	Mfr	Class		Failure Criteria	Test Remarks									
54LS76	MOT	1	Digital, Flip-Flop	LSTTL	19 252 13									
<hr/>														
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Test Number	Test Date	Test Code	Test Devices	Test Result	Test Voltage	Test Pin Combination	Test Remarks
	392	1086 SS	1500 Ohms	100E-12 F	1	N/R	5	FAILED	1250 EACH	PIN TO 5 & 13 (+ - -)				
54LS85	N/R	1	Linear, Comparator	LSTTL										
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500 N/R				13
54LS85	MOT	1	Linear, Comparator	LSTTL										
	436	1186 SS	1500 Ohms	100E-12 F	7	N/R	1	FAILED	800 VCC	TO GND	5	252		3
54LS86	TEX	2	Digital, Gate	LSTTL										
	390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1	PASSED	2000 S/R	105	247		11
54LS86	N/R	1	Digital, Gate	LSTTL										
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500 N/R	103	252		13
54LS90	NSC	1	Digital, Counter/Divider	LSTTL										
	383	N/R	SS	1500 Ohms	100E-12 F	1	N/R	1	FAILED	2692 IN.(-) APTT(+)	49	188		8
								1	FAILED	618 OUT.(-) APTT(+)	49	188		8
								1	FAILED	459716 VCC(-) APTT(-)	49	188		8
54LS90	MOT	1	Digital, Counter/Divider	LSTTL										
	436	1186 SS	1500 Ohms	100E-12 F	6	N/R	1	FAILED	700 INPUT	TO GND	5	252		3

RAC ESD Database

Part Number	Part ESD		Part		Description		Technology	
	Mfr	Class	Test	Test	Test	Test	Failure Criteria	General Remarks
54LS92	N/R	1	100E-12 F	100E-12 F	100E-12 F	100E-12 F	103	252
54LS92	TEX	1	100E-12 F	100E-12 F	100E-12 F	100E-12 F	103	252
54LS93	MOT	1	100E-12 F	100E-12 F	100E-12 F	100E-12 F	103	252
54S00	TEX	2	100E-12 F	100E-12 F	100E-12 F	100E-12 F	103	252
54S00	N/R	1	100E-12 F	100E-12 F	100E-12 F	100E-12 F	103	252
54S00	SIG	1	100E-12 F	100E-12 F	100E-12 F	100E-12 F	103	252
54S02	N/R	1	100E-12 F	100E-12 F	100E-12 F	100E-12 F	103	252

RAC ESD Database

Part Number	Part ESD		Part Description				Technology									
	Mfr	Class	1	Digital, Gate	STTL											
Test Source	Test Date	Test Type	Resistance	Capacitance	Test	Number	Date	Pulses	Code	Test Result	Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks	
																030
54S04	TEX	1	Digital, Inverter, Buffer													STTL
	298	N/R	GN	1500 Ohms	200E-12 F	200	N/R	1	PASSED	600	VCC(14)(+)	IN.(1)(-)	84	252	13	
	297	N/R	GN	1500 Ohms	100E-12 F	200	N/R	1	PASSED	800	VCC(14)(+)	IN.(1)(-)	84	252	13	
	298	N/R	GN	1500 Ohms	200E-12 F	1	N/R	1	PASSED	800	VCC(14)(+)	IN.(1)(-)	84	252	13	
	314	N/R	GN	1500 Ohms	100E-12 F	200	N/R	1	PASSED	900	VCC(14)(+)	IN.(1)(-)	84	252	13	
	319	N/R	GN	1500 Ohms	100E-12 F	200	N/R	1	PASSED	975	VCC(14)(+)	IN.(1)(-)	84	252	13	
	320	N/R	GN	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000	VCC(14)(+)	IN.(1)(-)	77	252	13	
	320	N/R	GN	1500 Ohms	100E-12 F	200	N/R	2	PASSED	1000	VCC(14)(+)	IN.(1)(-)	84	252	13	
	320	N/R	GN	1500 Ohms	100E-12 F	1	N/R	4	FAILED	1000	VCC(14)(+)	IN.(1)(-)	121	252	13	
	320	N/R	GN	1500 Ohms	100E-12 F	2	N/R	3	FAILED	1000	VCC(14)(+)	IN.(1)(-)	121	252	13	
	320	N/R	GN	1500 Ohms	100E-12 F	9	N/R	1	FAILED	1000	VCC(14)(+)	IN.(1)(-)	121	252	13	
	320	N/R	GN	1500 Ohms	100E-12 F	30	N/R	1	FAILED	1000	VCC(14)(+)	IN.(1)(-)	121	252	13	
320	N/R	GN	1500 Ohms	100E-12 F	500	N/R	1	PASSED	1000	VCC(14)(+)	IN.(1)(-)	121	252	13		
320	N/R	GN	1500 Ohms	100E-12 F	2	N/R	2	FAILED	1000	VCC(14)(+)	IN.(1)(-)	121	252	13		
320	N/R	GN	1500 Ohms	100E-12 F	6	N/R	1	FAILED	1000	VCC(14)(+)	IN.(1)(-)	121	252	13		
321	N/R	GN	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000	VCC(14)(+)	IN.(1)(-)	77	252	13		

RAC ESD Database

Part Number (Cont'd)	Part ESD Part		Description		Technology																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	Mfr	Class	1 Digital, Inverter, Buffer										STTL																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
5444	TEX																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										

RAC ESD Database

Part Number 54S04	Part ESD		Part		Technology	
	Mfr	Class	Description		Failure	Test
	TEX	1	Digital, Inverter, Buffer		STTL	
Test	Test	Test	Test	Test	Test	General
Source	Date	Type	Resistance	Capacitance	Number	Remarks
328	N/R	GN	1500 Ohms	100E-12 F	1 N/R	1350 VCC(14)(+) IN.(1)(-) 121 252 13
					2 FAILED	
					1 FAILED	
329	N/R	GN	1500 Ohms	100E-12 F	1 N/R	1375 VCC(14)(+) IN.(1)(-) 121 252 13
329	N/R	GN	1500 Ohms	100E-12 F	2 N/R	1375 VCC(14)(+) IN.(1)(-) 121 252 13
329	N/R	GN	1500 Ohms	100E-12 F	3 N/R	1375 VCC(14)(+) IN.(1)(-) 121 252 13
329	N/R	GN	1500 Ohms	100E-12 F	4 N/R	1375 VCC(14)(+) IN.(1)(-) 77 252 13
329	N/R	GN	1500 Ohms	100E-12 F	1 N/R	1375 VCC(14)(+) IN.(1)(-) 121 252 13
					4 FAILED	
					2 PASSED	
330	N/R	GN	1500 Ohms	100E-12 F	1 N/R	1500 VCC(14)(+) IN.(1)(-) 84 252 13
					2 PASSED	
					7 FAILED	
330	N/R	GN	1500 Ohms	100E-12 F	2 N/R	1500 VCC(14)(+) IN.(1)(-) 121 252 13
330	N/R	GN	1500 Ohms	100E-12 F	3 N/R	1500 VCC(14)(+) IN.(1)(-) 121 252 13
					1 FAILED	
331	N/R	GN	1500 Ohms	200E-12 F	1 N/R	1500 VCC(14)(+) IN.(1)(-) 77 252 13
346	N/R	GN	1500 Ohms	100E-12 F	1 N/R	2000 VCC(14)(+) IN.(1)(-) 77 252 13
347	N/R	GN	1500 Ohms	200E-12 F	1 N/R	2000 VCC(14)(+) IN.(1)(-) 77 252 13
					1 FAILED	
54S04	FSC	2	Digital, Inverter, Buffer		STTL	
390	N/R	GN	1500 Ohms	100E-12 F	5 N/R	105 247 11
					1 PASSED	

RAC ESD Database

Part Number	Part Number (Cont'd)	Part ESD		Part Description	Technology															
		Mfr	Class		Test	Test Date	Test Type	Resistance	Capacitance	Test	Number	Date	Code	Devices	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
54S04		N/R	1	Digital, Inverter, Buffer	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	1000	N/R	103	252	13
		N/R	1	Digital, Inverter, Buffer																
		030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	N/R	1	FAILED	1000	N/R	103	252	13	
54S08		N/R	1	Digital, Gate																
		030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	N/R	1	FAILED	1000	N/R	103	252	13	
		030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	N/R	1	FAILED	1000	N/R	103	252	13	
54S10		TEX	2	Digital, Gate																
		004	1175 SS	0	Ohms	125E-12 F	1	N/R	1	N/R	1	N/R	1	FAILED	600	INPUT	102	231	13	
														1	FAILED	1700	INPUT	102	235	13

Part No. 54S135
 Part Description
 1 Digital, Gate

Test Type
 STTL

Test	Test Date	Test Type	Test Resistance	Test Capacitance	Test Voltage	Test Result	Test Voltage	Test Pin	Test Combination	Failure Criteria	Test Remarks	General Remarks
030	N/R	N/R	1500 Ohms	100E-12 F	1000	1 FAILED	1000	N/R		103	252	13

54S135
 N/R 1 Digital, Error Detect/Correct, Parity/Carry Gen
 030 N/R N/R 1500 Ohms 100E-12 F 1 N/R 1 FAILED 1000 N/R 103 252 13

54S138
 N/R 1 Digital, Decoder
 030 N/R N/R 1500 Ohms 100E-12 F 1 N/R 1 FAILED 1000 N/R 103 252 13
 245 N/R SS 100 Ohms N/R 1 N/R 15 FAILED 40 INPUT(+) GND(-) 47 186 21

54S140
 N/R 1 Digital, Line/Bus Driver
 030 N/R N/R 1500 Ohms 100E-12 F 1 N/R 1 FAILED 1000 N/R 103 252 13

54S151
 N/R 1 Digital, Multiplexer
 030 N/R N/R 1500 Ohms 100E-12 F 1 N/R 1 FAILED 1000 N/R 103 252 13

54S153
 FSC 2 Digital, Multiplexer
 390 N/R GN 1500 Ohms 100E-12 F 5 N/R 1 PASSED 2000 S/R 105 247 11

54S153
 N/R 1 Digital, Multiplexer
 030 N/R N/R 1500 Ohms 100E-12 F 1 N/R 1 FAILED 1000 N/R 103 252 13

RAC ESD Database

RAC ESD Database

Part Number	Part ESD		Part Description	Technology										
	Mfr	Class			Test	Test Type	Resistance	Capacitance	Pulses	Code	Number	Test Result	Voltage	Pin Combination
54S157	SIG	1	Digital, Multiplexer	STTL	Source Date	128	0381 SS	1000 Ohms	200E-12 F	5	N/R	2 FAILED	1100	INPUTS(+) GROUND(-)
54S157	N/R	1	Digital, Multiplexer	STTL										
030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1 FAILED	1000	N/R					
54S160	N/R	1	Digital, Counter/Divider	STTL										
030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1 FAILED	1000	N/R					
54S161	N/R	1	Digital, Counter/Divider	STTL										
030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1 FAILED	1000	N/R					
54S169	TEX	1	Digital, Counter/Divider	STTL										
022	1086 SS	1500 Ohms	100E-12 F	1	N/R	5 FAILED	850 EACH PIN TO 8 & 16 (+ -)							
54S174	AMD	2	Digital, Flip-Flop	STTL										
390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1 PASSED	2000	S/R					
54S174	TEX	2	Digital, Flip-Flop	STTL										
390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1 PASSED	2000	S/R					

RAC ESD Database

Part Number	Part ESD		Part		Technology	
	Number	(Cont'd)	Mfr	Class	Description	STTL
54S174	N/R	1	Digital, Flip-Flop			
	Test	Test	Test	Test	Test	Test
	Source	Date	Type	Resistance	Capacitance	Number
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1000 N/R
						13
54S175	N/R	1	Digital, Flip-Flop			
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1000 N/R
						13
54S181	TEX	1	Digital, Arithmetic, Logic Unit			
	029	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1106 N/R
						13
54S181	N/R	1	Digital, Arithmetic, Logic Unit			
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1000 N/R
						13
54S182	TEX	2	Digital, Arithmetic, Carry Generator			
	390	N/R	GN	1500 Ohms	100E-12 F	5 N/R
						1 PASSED
						2000 S/R
						11
54S189	N/R	1	Digital, Memory, RAM, Static			
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1000 N/R
						13
54S20	N/R	1	Digital, Gate			
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1000 N/R
						13
54S200	N/R	1	Digital, Memory, RAM			
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1000 N/R
						13

Part Number	Part ESD		Part		Technology	
	Mfr. Number	Class	Description			
54S22	N/R	1	Digital, Gate		STTL	
	Test Date	Test Type	Test Resistance	Capacitance	Number	Test
	030	N/R	N/R	1500 Ohms	100E-12 F	103
						252
						13
54S251	N/R	1	Digital, Multiplexer		STTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	103
						252
						13
54S257	N/R	1	Digital, Multiplexer		STTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	103
						252
						13
54S258	N/R	1	Digital, Multiplexer		STTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	103
						252
						13
54S280	TEX	1	Digital, Gate		STTL	
	436	0688 SS	1500 Ohms	100E-12 F	5	252
						3
	436	1186 SS	1500 Ohms	100E-12 F	5	252
						3
54S297	N/R	1	Digital, Memory, PROM		STTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	103
						252
						13
54S288	N/R	1	Digital, Memory, PROM		STTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	103
						252
						13

RAC ESD Database

RAC ESD Database

Part	Part ESD	Part	Technology			
Number	Class	Description	Failure Criteria	Test Remarks	General Remarks	
54S30	NSC	1 Digital, Memory, PROM	STTL			

RAC ESD Database

Part Number	Part ESD	Part	Technology
54804	NSC	Digital, Gate	STTL
	Test	Test	Test
	Test Date	Test Type	Test Result
	Source	Resistance	Capacitance
	392	1086 SS	1500 Ohms
		100E-12 F	1 N/R
		100E-12 F	5 FAILED
		951 EACH PIN TO 7 & 14 (+ -)	19 252 13
54S734	MON	1 Digital, Memory, RAM, Dynamic	STTL
	36	1186 SS	1500 Ohms
		100E-12 F	8 N/R
		100E-12 F	1 FAILED
		900 INPUT TO GND	5 252 3
	36	1186 SS	1500 Ohms
		100E-12 F	11 N/R
		100E-12 F	1 FAILED
		1400 INPUT TO GND	5 252 3
54S74	N/R	1 Digital, Flip-flop	STTL
	030	N/R	1500 Ohms
		100E-12 F	1 N/R
		100E-12 F	1 FAILED
		1000 N/R	103 252 13
54S85	N/R	1 Digital, Arithmetic, Magnitude Comparator	STTL
	030	N/R	1500 Ohms
		100E-12 F	1 N/R
		100E-12 F	1 FAILED
		1000 N/R	103 252 13
54S86	N/R	1 Digital, Gate	STTL
	030	N/R	1500 Ohms
		100E-12 F	1 N/R
		100E-12 F	1 FAILED
		1000 N/R	103 252 13
55107	N/R	3 Digital, Line/Bus Receiver	Bipolar
	245	N/R	SS
		100 Ohms	N/R
		100E-12 F	1 N/R
		100E-12 F	15 FAILED
		41 INPUT(+) INPUT(-)	47 186 21
55109	N/R	3 Digital, Line/Bus Driver	Bipolar
	245	N/R	SS
		100 Ohms	N/R
		100E-12 F	1 N/R
		100E-12 F	15 FAILED
		84 INPUT(+) GND(-)	47 186 21

RAC ESD Database

Part Number	Part ESD		Part Description	Test				Number	Date	Pulses	Code	Devices	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
	Mfr	Class		Test Date	Test Type	Resistance	Capacitance											
55113	TEX	2	Digital, Line/Bus Driver	390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	5	N/R	1	PASSED	2000 S/R	105	247	11
55114	TEX	3	Digital, Line/Bus Driver	390	N/R	CN	1500 Ohms	100E-12 F	5	N/R	5	N/R	1	PASSED	2000 S/R	105	247	11
				436	1186	SS	1500 Ohms	100E-12 F	18	N/R	18	N/R	1	PASSED	4000 N/R	5	252	3
55114	FSC	1	Digital, Line/Bus Driver	436	1186	SS	1500 Ohms	100E-12 F	14	N/R	14	N/R	1	FAILED	2000 INPUT TO OUTPUT	5	252	3
55326	TEX	2	Digital, Line/Bus Driver	390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	5	N/R	1	PASSED	2000 S/R	105	247	11
55327	TEX	2	Digital, Line/Bus Driver															
				390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	5	N/R	1	PASSED	2000 S/R	105	247	11
55454	TEX	1	Digital, Line/Bus Driver	436	1186	SS	1500 Ohms	100E-12 F	11	N/R	11	N/R	1	FAILED	1400 INPUT TO GND	5	252	3
55461	N/R	2	Digital, Line/Bus Driver	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	3000 N/R	103	252	13

RAC ESD Database

Part Number	Part ESD		Part Description												Technology		
	Mfr	Class	Description												Failure Criteria	Test Remarks	General Remarks
55462	N/R	2	Digital, Line/Bus Driver												103	252	13
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Number	Date	Devices	Code	Test Result	Test Voltage	Test Pin Combination				
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	3000	N/R				
55463	N/R	2	Digital, Line/Bus Driver														
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	3000	N/R	103	252	13	
55464	N/R	2	Digital, Line/Bus Driver														
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	3000	N/R	103	252	13	
										1	FAILED	3000	N/R	103	252	13	
555	SIG	1	Linear														
	026	0178	SS	100 Ohms	200E-12 F	1	N/R	4	N/R	4	FAILED	296	N/R	6	285	13	
555	N/R	1	Linear														
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	1700	N/R	103	252	13	
										1	FAILED	1700	N/R	103	252	13	
556	N/R	1	Linear														
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	1700	N/R	103	252	13	
5710	SIG	3	Linear, Comparator														
	029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	6910	N/R	102	188	13	

RAC ESD Database

Part Number	Part ESD		Part		Technology	
	Mfr	Class	Description			
573	VAR	2	Digital, Latch		Bipolar	
5845	MOT	1	Linear, Voltage Reference	Test	Test	General
				Source Date	Resistance	Failure Criteria
				424	0983 SS 1500 Ohms	100E-12 F
				424	0983 SS 1500 Ohms	100E-12 F
				423	0983 SS 0 Ohms	0 F
6116	IDT	1	Digital, Memory, RAM, Static	Test	Test	General
				Source Date	Resistance	Failure Criteria
				436	1186 SS 1500 Ohms	100E-12 F
				436	0588 SS 1500 Ohms	100E-12 F
				436	0588 SS 1500 Ohms	100E-12 F
6116590	IDT	1	Digital, Memory, RAM, Static	Test	Test	General
				Source Date	Resistance	Failure Criteria
				392	0184 SS 1500 Ohms	100E-12 F
				393	0383 SS 1500 Ohms	100E-12 F
				393	0383 SS 1500 Ohms	100E-12 F
63983	NSC	1	Digital, Memory, RAM	Test	Test	General
				Source Date	Resistance	Failure Criteria
				424	0983 SS 1500 Ohms	100E-12 F
				424	0983 SS 1500 Ohms	100E-12 F
				423	0983 SS 0 Ohms	0 F

RAC ESD Database

Part Number	Part ESD		Part Description		Technology	
	Mfr Class	VAR	Test Type	Test Resistance	Test Capacitance	Test Pulses
6504	2	Digital, Memory, RAM, Static	2	1500 Ohms	100E-12 F	2 N/R
	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Test Result
424	0983 SS	1500 Ohms	100E-12 F	1 N/R	4 FAILED	250 PIN 13
424	0983 SS	1500 Ohms	100E-12 F	1 N/R	4 FAILED	250 PIN 13
424	0983 SS	1500 Ohms	100E-12 F	4 N/R	7 FAILED	500 PIN 13
423	0983 SS	0 Ohms	0 F	6 N/R	5 FAILED	750 PINS 1-3, AND 15-17
423	0983 SS	0 Ohms	0 F	5 N/R	4 FAILED	43000 PINS 1-3 AND 15-17
423	0983 SS	0 Ohms	0 F	7 N/R	6 FAILED	43000 PINS 1-3 AND 15-17
6514	NSC	2	Digital, Memory, RAM, Static			
055	0681 GN	1000 Ohms	200E-12 F	5 N/R	2 PASSED	250 LID TO ALL PINS
056	0681 GN	1000 Ohms	200E-12 F	5 N/R	2 PASSED	500 LID TO ALL PINS
057	0681 GN	1000 Ohms	200E-12 F	5 N/R	2 PASSED	1000 LID TO ALL PINS
058	0681 GN	1000 Ohms	200E-12 F	5 N/R	2 FAILED	2000 LID TO ALL PINS
059	0681 GN	1000 Ohms	200E-12 F	5 N/R	2 FAILED	4000 LID TO ALL PINS
6514	MON	1	Digital, Memory, RAM, Static			
002	0679 SS	1500 Ohms	100E-12 F	1 N/R	1 FAILED	1500 N/R
6514	RCA	1	Digital, Memory, RAM, Static			
002	0679 SS	1500 Ohms	100E-12 F	1 N/R	1 FAILED	1400 N/R

Failure Criteria	Test Remarks	General Remarks
46	149	13
46	149	13
46	149	13
46	252	4
46	252	4
46	252	4
57	60	13
57	60	13
57	60	13
57	60	13
57	60	13
48	252	13
48	252	13

RAC ESD Database

Part Number	Part ESD		Part Description	Technology	
	Mfr	Class		Failure Criteria	Test Remarks
6518	N/R	1	Digital, Memory, RAM, Static	CMOS	
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance
	028	N/R	SS	1500 Ohms	117E-12 F
				30 N/R	5 FAILED
				750 N/R	13
6561	HAR	1	Digital, Memory, RAM	CMOS	
	393	0881	SS	1500 Ohms	100E-12 F
				1 N/R	1 FAILED
				2000 N/R	13
6654	ISL	1	Digital, Memory, PROM	CMOS	
	393	1182	SS	1500 Ohms	100E-12 F
				1 N/R	1 FAILED
				1500 N/R	13
6800	N/R	1	Digital, Processing Unit, Central	NMOS	
	030	N/R	N/R	1500 Ohms	100E-12 F
				1 N/R	1 FAILED
				1000 N/R	13
				1000 N/R	13
				1000 N/R	13
68000	VAR	3	Digital, Processing Unit, Central	HMOS	
	424	1283	SS	1500 Ohms	100E-12 F
				1 N/R	1 FAILED
				250 PINS 17 AND 18	149
	424	1283	SS	1500 Ohms	100E-12 F
				4 N/R	5 FAILED
				500 PINS 17 AND 18	149
	424	1283	SS	1500 Ohms	100E-12 F
				3 N/R	5 FAILED
				500 PINS 17 AND 18	149
	424	1283	SS	1500 Ohms	100E-12 F
				6 N/R	1 FAILED
				750 PINS 17 AND 18	149
	424	1283	SS	1500 Ohms	100E-12 F
				5 N/R	3 FAILED
				750 PINS 17 AND 18	149
	423	1283	SS	0 Ohms	0 F
				9 N/R	2 FAILED
				1250 PINS 10 AND 12	252
				100	4

RAC ESD Database

[illegible]

RAC ESD Database

Part Number	Part	Part ESD										Technology			
		Mfr		Class		Description		Number		Date		Failure Criteria	Test Remarks	General Remarks	
		N/R	N/R	N/R	N/R	1	Digital, Processing Unit, Central	1	N/R	1	N/R				
5844		Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	
		Source	Date	Type	Resistance	Capacitance	Pulses	Code	Devices	Result	Voltage	Pin	Combination	Test	Test
		030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000	N/R		103	252
6845		N/R	1	Digital, Processing Unit, Central									NMOS		
		030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000	N/R	103	252	
		13													
6850		N/R	1	Digital, Processing Unit, Central									NMOS		
		030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000	N/R	103	252	
		13													
6875		N/R	1	Digital, Processing Unit, Central									NMOS		
		030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000	N/R	103	252	
		13													
7040		N/R	1	Digital, Processing Unit, Central									NMOS		
		030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000	N/R	103	252	
		13													
7040		NIT	2	Digital, Memory, EAROM									NMOS		
		383	N/R	SS	1500 Ohms	100E-12 F	1	N/R	1	FAILED	2308	D04(10)(+)	APTT(-)	49	188
														49	188
709		FSC	1	Linear, Operational Amplifier									Bipolar		
		029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1984	N/R	102	189	
													102	188	
70C97		NSC	1	Digital, Inverter, Buffer									CMOS		
		393	0285	SS	1500 Ohms	100E-12 F	1	N/R	2	FAILED	1000	4(INPUT) 5(OUTPUT)	102	252	
		13													

RAC ESD Database

Part Number	Part ESD	Part	Test									
710	Mfr Class	Description										
	FSC	1	Linear, Comparator									
	Test	Test Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test
	Source	Date	Type	Resistance	Capacitance	Pulses	Code	Devices	Results	Notes	Notes	Notes
026	0178	SS	100	Ohms	200E-12 F	1	N/R	4	FAILED	1000 N/R	1000 N/R	1000 N/R
715	FSC	3	Linear, Operational Amplifier									
029	N/R	N/R	1500	Ohms	100E-12 F	1	N/R	1	FAILED	15546 N/R	1000 N/R	1000 N/R
7220	INT	1	Digital, Memory, Bubble									
428	N/R	GN	1500	Ohms	100E-12 F	5	N/R	10	FAILED	1030 PINS 1,6,AND 7	1000 N/R	1000 N/R
723	FSC	1	Linear, Voltage Regulator									
026	0178	SS	100	Ohms	200E-12 F	1	N/R	4	FAILED	273 V(-)(5)(+) VREF(4)(-)	1000 N/R	1000 N/R
392	0986	SS	1500	Ohms	100E-12 F	1	N/R	5	FAILED	1500 PINS 2-6,9,11,13 TO 7,12(+)	1000 N/R	1000 N/R
723	N/R	1	Linear, Voltage Regulator									
030	N/R	N/R	1500	Ohms	100E-12 F	1	N/R	1	FAILED	1000 N/R	1000 N/R	1000 N/R
245	N/R	SS	100	Ohms	N/R	1	N/R	15	FAILED	50 INPUT(+) INPUT(-)	1000 N/R	1000 N/R
72709	TEX	N	Linear, Operational Amplifier									
029	N/R	N/R	1500	Ohms	100E-12 F	1	N/R	1	FAILED	53665 N/R	1000 N/R	1000 N/R
733	N/R	1	Digital, Multivibrator									
030	N/R	N/R	1500	Ohms	100E-12 F	1	N/R	1	FAILED	1500 N/R	1000 N/R	1000 N/R

RAC ESD Database

Part Number	Part ESD		Part Description	Technology				
	Mfr	Class			Failure Criteria	Test Remarks	General Remarks	
733	N/R	1	Digital, Multivibrator	Bipolar	103	252	13	
740	FSC	3	Linear, Operational Amplifier	BIFET	102	188	13	
7400	FSC	1	Digital, Gate	TTL	61	204	13	
7400	MOT	2	Digital, Gate	TTL	102	188	13	
7400	TEX	3	Digital, Gate	TTL	102	188	13	
7400	SIG	3	Digital, Gate	TTL	102	188	13	
7400	N/R	1	Digital, Gate	TTL	87	252	13	

RAC ESD Database

Part Number	Part ESD		Part	Description				Technology									
	Mfr	Class		Mfr	Class	Description	TTL										
							TEX	3	Digital, Gate								
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Number	Date	Devices	Code	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks	
7402	029	N/R	N/R	1500 Ohms	100E-12 F	100E-12 F	1	N/R	1	N/R	1	FAILED	5485 N/R	102	188	13	
7402	FSC		1	Digital, Gate										TTL			
	426	0786	SS	1500 Ohms	100E-12 F		30	N/R	3	N/R	3	FAILED	2000 INPUT TO GND.	61	204	13	
7404	N/R		2	Digital, Inverter, Buffer										TTL			
	030	N/R	N/R	1500 Ohms	100E-12 F		1	N/R	1	N/R	1	FAILED	2500 N/R	103	252	13	
7404	FSC		1	Digital, Inverter, Buffer										TTL			
	426	0686	SS	1500 Ohms	100E-12 F		30	N/R	3	N/R	3	FAILED	2000 INPUT TO GND.	61	204	13	
7406	N/R		2	Digital, Line/Bus Driver										TTL			
	030	N/R	N/R	1500 Ohms	100E-12 F		1	N/R	1	N/R	1	FAILED	2500 N/R	103	252	13	
7407	N/R		2	Digital, Line/Bus Driver										TTL			
	030	N/R	N/R	1500 Ohms	100E-12 F		1	N/R	1	N/R	1	FAILED	2500 N/R	103	252	13	
741	FSC		1	Linear, Operational Amplifier										Bipolar			
	029	N/R	N/R	1500 Ohms	100E-12 F		1	N/R	1	N/R	1	FAILED	5958 N/R	102	188	13	
	054	0181	SS	1500 Ohms	100E-12 F		1	N/R	2	N/R	2	FAILED	1000 EACH PIN	51	171	13	

RAC ESD Database

Part Number	Part ESD	Part	Description		Technology										
Min	Max				Bipolar										
41	ESD	ESD	1 Linear, Operational Amplifier												
Test Source	Test Date	Test Type	Resistance	Capacitance	Pulses	Number	Date	Code	Devices	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
026	0178	SS	100 Ohms	200E-12 F	1	N/R	1	N/R	100	FAILED	315 OFF NULL(5)(+) V(-)(4)		33	285	13
418	0880	SS	1500 Ohms	125E-12 F	1	N/R	1	N/R	100	FAILED	500 NON-INVERTING INPUT		22	252	13
418	0880	SS	1500 Ohms	125E-12 F	2	N/R	2	N/R	100	FAILED	750 INVERTING INPUT		22	252	13
418	0880	SS	1500 Ohms	125E-12 F	4	N/R	4	N/R	100	FAILED	1250 POSITIVE NULL		22	252	13
418	0880	SS	1500 Ohms	125E-12 F	100	FAILED	100	FAILED	100	FAILED	1250 NEGATIVE NULL		22	252	13
418	0880	SS	1500 Ohms	125E-12 F	5	N/R	5	N/R	100	FAILED	5000 NEGATIVE SUPPLY		22	252	13
054	0181	SS	1500 Ohms	100E-12 F	1	N/R	1	N/R	2	FAILED	1000 EACH PIN		51	171	13
054	0181	SS	1500 Ohms	100E-12 F	1	N/R	1	N/R	2	FAILED	2000 EACH PIN		51	171	13
741	MOI	1	Linear, Operational Amplifier		Bipolar										
054	0181	SS	1500 Ohms	100E-12 F	1	N/R	1	N/R	2	FAILED	1000 EACH PIN		51	171	13
741	N/R	2	Linear, Operational Amplifier		Bipolar										
050	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	2500 N/R		103	252	13
050	0780	GN	1500 Ohms	125E-12 F	1	N/R	1	N/R	15	FAILED	500 OFFSET(+) APTT(-)		26	252	13
419	0880	SS	1500 Ohms	125E-12 F	1	N/R	1	N/R	23	FAILED	1250 INVERTING INPUT		22	252	13

[illegible]

RAC ESD Database

Part Number	Part ESD		Part Description	Technology	
	Mfr	Class		Failure Criteria	Test Remarks
7413	TEX	3	Digital, Gate, NAND, Schmitt Trigger	TTL	
Test Test Test Test Test Test Source Date Type Resistance Capacitance Pulses Code Devices Result Voltage Pin Combination 029 N/R N/R 1500 Ohms 100E-12 F 1 N/R 1 FAILED 7441 N/R					
74132	FSC	1	Digital, Multivibrator	TTL	
426	0986 SS	1500 Ohms	100E-12 F	30 8613	3 FAILED 2000 INPUT TO GND. 61 204 13
7414	FSC	1	Digital, Multivibrator	TTL	
426	0986 SS	1500 Ohms	100E-12 F	30 8633	3 FAILED 2000 INPUT TO GND. 61 204 13
74151	FSC	1	Digital, Multiplexer	TTL	
426	0686 SS	1500 Ohms	100E-12 F	30 8552	3 FAILED 2000 INPUT TO GND. 61 204 13
74153	FSC	1	Digital, Multiplexer	TTL	
426	0886 SS	1500 Ohms	100E-12 F	30 8624	3 FAILED 2000 INPUT TO GND. 61 204 13
74154	N/R	2	Digital, Decoder	TTL	
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R 1 FAILED 2500 N/R 103 252 13
74157	FSC	1	Digital, Multiplexer	TTL	
426	0786 SS	1500 Ohms	100E-12 F	30 8621	3 FAILED 2000 INPUT TO GND. 61 204 13
74163	TEX	2	Digital, Counter/Divider	TTL	
029	N/R	N/R	1500 Ohms	100E-12 F	1 N/R 1 FAILED 3733 N/R 102 188 13

RAC ESD Database

Part Number	Part ESD	Part	Description										Technology			
(Cont'd)	Mfr	Class	Type	Test	Resistance	Capacitance	Pulses	Date	Number	Devices	Test	Voltage	Pin Combination	Failure Criteria	Test	General
74163	N/R	1	Digital, Counter/Divider													TTL
	Test	Test	Test	Test												
	Source	Date	Type	Test	Resistance	Capacitance	Pulses	Date	Number	Devices	Test	Voltage	Pin Combination	Failure Criteria	Test	General
	234	N/R	SS	0	Ohms	N/R	1	N/R	1	1	FAILED	300	IN.(6)(+) GND(8)(-)	108	215	13
										1	FAILED	500	IN.(6)(+) GND(8)(-)	108	252	13
										1	FAILED	300	IN.(6)(+) GND(8)(-)	108	216	13
	235	N/R	SS	0	Ohms	120E-12 F	1	N/R	2	2	FAILED	200	IN.(6)(+) GND(8)(-)	108	214	13
										3	FAILED	200	IN.(6)(+) GND(8)(-)	108	252	13
	236	N/R	SS	0	Ohms	510E-12 F	1	N/R	2	2	FAILED	100	IN.(6)(+) GND(8)(-)	108	213	13
										1	FAILED	200	IN(2,6,10)(+) GND(-)	108	252	13
										1	FAILED	200	IN.(2,6)(+) GND(8)(-)	108	212	13
										1	FAILED	300	IN.(2,6)(+) GND(8)(-)	108	252	13
	237	N/R	SS	0	Ohms	.01E-07 F	1	N/R	2	2	FAILED	100	IN.(10)(+) GND(8)(-)	108	226	13
										1	FAILED	100	IN.(6,10)(+) GND(8)(-)	108	213	13
										1	FAILED	200	IN.(2,6)(+) GND(8)(-)	108	252	13
										1	FAILED	100	IN.(6)(+) GND(8)(-)	108	225	13
	238	N/R	SS	0	Ohms	.01E-06 F	1	N/R	4	4	FAILED	100	IN(2,6,10)(+) GND(-)	108	252	13
74164	FSC	1	Digital, Register, Shift											TTL		
	426	0686	SS	1500 Ohms	100E-12 F		30	N/R	3	3	FAILED	2000	INPUT TO GND.	61	204	13
74173	N/R	1	Digital, Flip-Flop											TTL		
	234	N/R	SS	0	Ohms	N/R	1	N/R	3	3	PASSED	500	IN(7,11,15)(+) GND(-)	108	252	13
	235	N/R	SS	0	Ohms	120E-12 F	1	N/R	3	3	PASSED	500	IN(7,11,15)(+) GND(-)	108	252	13
										1	FAILED	400	IN.(7)(+) GND(8)(-)	108	252	13
										1	FAILED	500	IN.(7)(+) GND(8)(-)	108	252	13
	236	N/R	SS	0	Ohms	510E-12 F	1	N/R	4	4	FAILED	300	IN(7,11,15)(+) GND(-)	108	252	13

Part Number	Part ESD	Part	Min. Class		Description	Test				Number	Date	Pulses	Code	Devices	Test Result	Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
			N/R	SS		Test Type	Resistance	Capacitance	Test											
74175			N/R	1	Digital, Flip-Flop														TTL	
						Source	Date	Type	Resistance	Capacitance	Test									
			236	N/R	SS	0	Ohms	510E-12	F			1	N/R		1	FAILED	200 IN.(11)(+) GND(8)(-)	108	228	13
			237	N/R	SS	0	Ohms	.01E-07	F			1	N/R		1	FAILED	400 IN(7,11,15)(+) GND(-)	108	252	13
												2			2	FAILED	300 IN(7,11,15)(+) GND(-)	108	252	13
												2			2	FAILED	300 IN.(7)(+) GND(8)(-)	108	252	13
			238	N/R	SS	0	Ohms	.01E-06	F			1	N/R		1	FAILED	100 IN.(11,15)(+) GND(-)	108	217	13
												1			1	FAILED	100 IN.(11)(+) GND(8)(-)	108	252	13
												1			1	FAILED	100 IN.(7)(+) GND(8)(-)	108	224	13
												1			1	FAILED	200 IN.(7)(+) GND(8)(-)	108	252	13
74175			NSC	2	Digital, Flip-Flop														TTL	
			127	N/R	SS	1000	Ohms	200E-12	F			1	N/R		1	FAILED	1400 INPUTS(+) GROUND(-)	3	252	13
												1			1	PASSED	1500 INPUTS(+) GROUND(-)	3	252	13
			127	N/R	SS	1000	Ohms	200E-12	F			10	N/R		2	PASSED	1500 INPUTS(+) GROUND(-)	3	252	13
74175			TEX	2	Digital, Flip-Flop														TTL	
			127	N/R	SS	1000	Ohms	200E-12	F			1	N/R		1	FAILED	1500 INPUTS(+) GROUND(-)	3	252	13
												1			1	PASSED	1500 INPUTS(+) GROUND(-)	3	252	13
			127	N/R	SS	1000	Ohms	200E-12	F			10	N/R		1	FAILED	1500 INPUTS(+) GROUND(-)	3	252	13
												1			1	PASSED	1500 INPUTS(+) GROUND(-)	3	252	13
74175			FSC	1	Digital, Flip-Flop														TTL	
			426	0786	SS	1500	Ohms	100E-12	F			30	N/R		3	FAILED	2000 INPUT TO GND.	61	204	13
74182			N/R	2	Digital, Arithmetic, Carry Generator														TTL	
			030	N/R	N/R	1500	Ohms	100E-12	F			1	N/R		1	FAILED	2500 N/R	103	252	13

RAC ESD Database

Part Number	Part ESD		Part		Technology	
	Mfr	Class	Description			
74191	FSC	1	Digital, Counter/Divider		TTL	
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses
	426	1086 SS	1500 Ohms	100E-12 F	30 8634	3 FAILED
					2000 INPUT TO GND.	204 13
7420	FSC	1	Digital, Gate		TTL	
	426	0686 SS	1500 Ohms	100E-12 F	30 8613	3 FAILED
					2000 INPUT TO GND.	204 13
7425	N/R	2	Digital, Gate		TTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
					2500 N/R	103 252 13
7432	FSC	1	Digital, Gate		TTL	
	425	0786 SS	1500 Ohms	100E-12 F	30 8621	3 FAILED
					2000 INPUT TO GND.	61 204 13
7437	N/R	2	Digital, Gate		TTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
					2500 N/R	103 252 13
	067	N/R	N/R	0 Ohms	N/R	1 FAILED
					750 INPUT	102 252 9
	068	N/R	N/R	0 Ohms	100E-12 F	1 FAILED
					475 INPUT	102 252 9
	069	N/R	N/R	0 Ohms	15UE-12 F	1 FAILED
					400 INPUT	102 252 9
	070	N/R	N/R	0 Ohms	200E-12 F	1 FAILED
					300 INPUT	102 252 9
7438	N/R	2	Digital, Gate		TTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
					2500 N/R	103 252 13

RAC ESD Database

Part Number	Part ESD	Part	Description										Technology		
			Mfr	Class	Test		Test		Number		Test		Failure	Test	General
7440	FSC	1	Digital, Inverter, Buffer										TTL		
			Source	Date	Type	Resistance	Capacitance	Pulses	Code	Devices	Voltage	Pin Combination			Criteria
			426	0786	SS	1500 Ohms	100E-12 F	30	8606	3	FAIL-D	2000 INPUT TO GND.	61	204	13
7445	N/R	2	Digital, Decoder										TTL		
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	2500 N/R	103	252	13		
7446	N/R	2	Digital, Decoder										TTL		
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	2500 N/R	103	252	13		
747	FSC	3	Linear, Operational Amplifier										Bipolar		
	029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	13675 N/R	102	188	13		
747	N/R	2	Linear, Operational Amplifier										Bipolar		
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	2500 N/R	103	252	13		
7474	FSC	1	Digital, Flip-Flop										TTL		
	426	0986	SS	1500 Ohms	100E-12 F	30	8626	3	FAILED	2000 INPUT TO GND.	61	204	13		
747A	RAY	2	Linear, Operational Amplifier										Bipolar		
	392	0986	SS	1500 Ohms	100E-12 F	1	N/R	5	FAILED	2750 PINS 1,2 & 10,12 TO 4,9,13	19	145	13		
7486	FSC	1	Digital, Gate										TTL		
	426	0886	SS	1500 Ohms	100E-12 F	30	8619	3	FAILED	2000 INPUT TO GND.	61	204	13		

RAC ESD Database

Part Number	Part ESD		Part Description	Technology																
	Mfr	Class		TTL								Failure Criteria	Test Remarks	General Remarks						
7490	TEX	3	Digital, Counter/Divider	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Number Code	Date Code	Devices	Test Result	Test Voltage	Pin Combination					
				029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	4987	N/R				102	188	13
				CMOS																
				427	0886	SS	1500 Ohms	100E-12 F	40	N/R	3	FAILED	4000	INPUT TO OUTPUT				100	275	13
											3	FAILED	3500	INPUT TO OUTPUT				100	275	13
				427	0886	SS	1500 Ohms	100E-12 F	50	N/R	3	FAILED	5000	INPUT TO GND.				100	275	13
											3	FAILED	5000	VCC TO GND.				100	275	13
				426	0886	SS	1500 Ohms	100E-12 F	40	N/R	3	FAILED	3500	VCC TO OUTPUT				100	275	13
											3	FAILED	3500	OUTPUT TO GND.				100	275	13
				CMOS																
74AC109	FSC	3	Digital, Flip-Flop																	
				427	0886	SS	1500 Ohms	100E-12 F	50	N/R	3	FAILED	5000	INPUT TO GND.				100	275	13
				427	0587	SS	1500 Ohms	100E-12 F	50	N/R	3	FAILED	5000	OUTPUT TO GND.				100	275	13
				426	0587	SS	1500 Ohms	100E-12 F	50	N/R	3	FAILED	4850	INPUT TO VCC				100	275	13
				427	0587	SS	1500 Ohms	100E-12 F	50	N/R	3	FAILED	5000	OUTPUT TO VCC				100	275	13
											3	FAILED	4850	INPUT TO OUTPUT.				100	275	13
											3	FAILED	5000	VCC TO GND.				100	275	13
				CMOS																
				427	1186	SS	1500 Ohms	100E-12 F	50	N/R	3	FAILED	4250	INPUT TO GND.				100	275	13
											3	FAILED	4950	OUTPUT TO GND.				100	275	13
74AC153	FSC	2	Digital, Multiplexer																	
				427	1186	SS	1500 Ohms	100E-12 F	40	N/R	3	FAILED	3950	INPUT TO VCC				100	275	13

RAC ESD Database

Part Number	Part ESD	Part	Description			Technology							
			Mfr	Class		Failure Criteria	General Remarks						
74AC153	FSC	2	Digital, Multiplexer			CMOS							
	Test Date	Test Type	Test Re:istance	Test Capacitance	Test Pulses	Number Date	Code	Devices	Test Result	Test Voltage	Pin Combination	Failure Criteria	General Remarks
	427	1186 SS	1500 Ohms	100E-12 F	50	N/R			3 FAILED	5000	OUTPUT TO VCC	100	275
									3 FAILED	4450	INPUT TO OUTPUT	100	275
									3 FAILED	5000	VCC TO GND	100	275
74AC163	FSC	2	Digital, Counter/Divider						CMOS				
	427	0387 SS	1500 Ohms	100E-12 F	40	N/R			3 FAILED	4000	INPUT TO GND	100	275
	427	0387 SS	1500 Ohms	100E-12 F	50	N/R			3 FAILED	4800	INPUT TO VCC	100	275
									3 FAILED	5000	OUTPUT TO GND.	100	275
									3 FAILED	5000	OUTPUT TO VCC	100	275
									3 FAILED	5000	INPUT TO OUTPUT	100	275
									3 FAILED	5000	VCC TO GND.	100	275
74AC169	FSC	2	Digital, Counter/Divider						CMOS				
	427	0786 SS	1500 Ohms	100E-12 F	40	N/R			3 FAILED	3700	INPUT TO GND	100	275
	427	0786 SS	1500 Ohms	100E-12 F	50	N/R			3 FAILED	4800	INPUT TO VCC	100	275
									3 FAILED	5000	OUTPUT TO GND	100	275
									3 FAILED	5000	OUTPUT TO VCC	100	275
									3 FAILED	4800	INPUT TO OUTPUT	100	275
									3 FAILED	5000	VCC TO GND	100	275
74AC191	FSC	3	Digital, Counter/Divider						CMOS				
	427	0287 SS	1500 Ohms	100E-12 F	50	N/R			3 FAILED	4800	INPUT TO VCC	100	275
									3 FAILED	4875	INPUT TO GND	100	275
									3 FAILED	5000	OUTPUT TO VCC	100	275
									3 FAILED	5000	OUTPUT TO GND	100	275

RAC ESD Database

Part Number	Part ESD	Part Description	Technology														
			Mfr	Class	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Test Date Code	Test Number	Test Result	Test Voltage	Test Pin Combination	Failure Criteria	Test Remarks	General Remarks
74AC191	FSC	3	Digital, Counter/Divider														CMOS
																	</

RAC ESD Database

Part Number	Part	ESD Class	Description	Technology									
74AC253				CMOS									
FSC				CMOS									
Test	Test Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	
Sol	Date	Type	Resistance	Capacitance	Pulses	Date	Code	Devices	Voltage	Pin	Combination	General	
427	0986	SS	1500 Ohms	100E-12 F	50	N/R	3	5000	INPUT	TO	OUTPUT	13	
							3	5000	VCC	TO	GND	13	
74AC258													
FSC													
2 Digital, Multiplexer													
427	1186	SS	1500 Ohms	100E-12 F	50	N/R	3	5000	INPUT	TO	GND	13	
427	1186	SS	1500 Ohms	100E-12 F	40	N/R	3	3650	INPUT	TO	VCC	13	
427	1186	SS	1500 Ohms	100E-12 F	50	N/R	3	5000	OUTPUT	TO	GND	13	
							3	5000	OUTPUT	TO	GND	13	
							3	4500	INPUT	TO	OUTPUT	13	
							3	5000	VCC	TO	GND	13	
74AC299													
FSC													
3 Digital, Register, Shift													
427	0986	SS	1500 Ohms	100E-12 F	50	N/R	3	5000	INPUT	TO	GND	13	
							3	5000	INPUT	TO	VCC	13	
							3	4800	OUTPUT	TO	GND	13	
							3	5000	OUTPUT	TO	VCC	13	
							3	5000	INPUT	TO	OUTPUT	13	
							3	4600	GND	TO	VCC	13	
74AC323													
FSC													
3 Digital, Register, Shift													
427	0986	SS	1500 Ohms	100E-12 F	50	N/R	3	5000	INPUT	TO	GND	13	
							3	5000	INPUT	TO	VCC	13	
							3	4700	OUTPUT	TO	GND	13	
							3	5000	OUTPUT	TO	VCC	13	
							3	5000	INPUT	TO	OUTPUT	13	

RAC ESD Database

Part Number	Part	Part ESD		Part Description	Technology												
		Mfr	Class		Failure Criteria	Test Voltage	Test Result	Test Pin Combination	General Remarks								
74AC323	FSC	3	Digital, Register, Shift	Test Source	Test Date	Test Resistance	Test Capacitance	Number Pulses	Date Code	Number Devices	Test Voltage	Test Result	Test Pin Combination	Failure Criteria	Test Voltage	Test Result	General Remarks
				427	0986	SS	1500 Ohms	100E-12 F	50	N/R	3	FAILED	4600	GND TO VCC	100	275	13
				CMOS													
				CMOS													
				CMOS													
74AC521	FSC	1	Linear, Comparator	Test Source	Test Date	Test Resistance	Test Capacitance	Number Pulses	Date Code	Number Devices	Test Voltage	Test Result	Test Pin Combination	Failure Criteria	Test Voltage	Test Result	General Remarks
				427	1086	SS	1500 Ohms	100E-12 F	30	N/R	3	FAILED	1890	INPUT TO GND	100	275	13
				427	1086	SS	1500 Ohms	100E-12 F	40	N/R	3	FAILED	2850	INPUT TO VCC	100	275	13
				427	1086	SS	1500 Ohms	100E-12 F	50	N/R	3	FAILED	4950	OUTPUT TO GND	100	275	13
				427	1086	SS	1500 Ohms	100E-12 F	40	N/R	3	FAILED	3800	OUTPUT TO VCC	100	275	13
74AC540	FSC	3	Digital, Line/Bus Driver	Test Source	Test Date	Test Resistance	Test Capacitance	Number Pulses	Date Code	Number Devices	Test Voltage	Test Result	Test Pin Combination	Failure Criteria	Test Voltage	Test Result	General Remarks
				427	0886	SS	1500 Ohms	100E-12 F	50	N/R	3	FAILED	5000	INPUT TO GND	100	275	13
				CMOS													
				CMOS													
				CMOS													
74AC541	FSC	3	Digital, Line/Bus Driver	Test Source	Test Date	Test Resistance	Test Capacitance	Number Pulses	Date Code	Number Devices	Test Voltage	Test Result	Test Pin Combination	Failure Criteria	Test Voltage	Test Result	General Remarks
				427	1086	SS	1500 Ohms	100E-12 F	50	N/R	3	FAILED	4999	INPUT TO GND	100	275	13
				CMOS													
				CMOS													
				CMOS													

RAC ESD Database

Part Number (Cont'd)	Part ESD		Part Description	Technology																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
	Mfr Class	Part		CMOS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
74AC541	FSC	3	Digital, Line/Bus Driver																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	</

RAC ESD Database

Part Number	Part ESD		Part Description	Technology
	Mfr	Class		
74ACT74	FSC	3	Digital, Flip-Flop	CMOS
74ACT00	FSC	2	Digital, Gate	CMOS
74ACT03	FSC	3	Digital, Gate	CMOS
74ACT109	FSC	3	Digital, Flip-Flop	CMOS

Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Test Code	Test Number	Test Result	Test Voltage	Test Pin Combination	Failure Criteria	Test Remarks	General Remarks
426	0886	SS	1500 Ohms	100E-12 F	50	N/R	3	FAILED	5000	OUTPUT TO VCC	100	275	13
							3	FAILED	5000	OUTPUT TO GND.	100	275	13
							3	FAILED	5000	VCC TO GND.	100	275	13
427	0886	SS	1500 Ohms	100E-12 F	50	N/R	3	FAILED	5000	INPUT TO OUTPUT	100	275	13
427	0187	SS	1500 Ohms	100E-12 F	40	N/R	3	FAILED	2600	INPUT TO GND	100	275	13
							3	FAILED	3100	OUTPUT TO GND	100	275	13
427	0187	SS	1500 Ohms	100E-12 F	50	N/R	3	FAILED	4250	INPUT TO VCC	100	275	13
							3	FAILED	4950	OUTPUT TO VCC	100	275	13
427	0187	SS	1500 Ohms	100E-12 F	40	N/R	3	FAILED	2700	INPUT TO OUTPUT	100	275	13
427	0187	SS	1500 Ohms	100E-12 F	50	N/R	3	FAILED	5000	VCC TO GND	100	275	13
427	0986	SS	1500 Ohms	100E-12 F	50	N/R	3	FAILED	4500	INPUT TO GND	100	275	13
							3	FAILED	4250	INPUT TO VCC	100	275	13
							3	FAILED	5000	OUTPUT TO GND	100	275	13
							3	FAILED	5000	OUTPUT TO VCC	100	275	13
							3	FAILED	4500	INPUT TO OUTPUT	100	275	13
							3	FAILED	5000	VCC TO GND	100	275	13
427	0487	SS	1500 Ohms	100E-12 F	50	N/R	3	FAILED	5000	INPUT TO GND	100	275	13

RAC ESD Database

Part Number	Part ESD Mfr Class	Part Description	Technology													
			CMOS													
74ACT109	FSC	3	Digital, Flip-Flop	Test		Test		Number		Date		Test		Failure Criteria	Test Remarks	General Remarks
				Source	Date	Type	Resistance	Capacitance	Pulses	Code	Devices	Result	Voltage			
427	0487	SS	1500 Ohms	100E-12 F	50	N/R	3	FAILED	4950	INPUT TO VCC	100	275	13			
							3	FAILED	5000	OUTPUT TO GND	100	275	13			
							3	FAILED	5000	OUTPUT TO VCC	100	275	13			
							3	FAILED	4950	INPUT TO OUTPUT	100	275	13			
							3	FAILED	4950	VCC TO GND	100	275	13			
74ACT151	FSC	3	Digital, Multiplexer													
427	0487	SS	1500 Ohms	100E-12 F	50	N/R	3	FAILED	5000	INPUT TO GND	100	275	13			
							3	FAILED	5000	INPUT TO VCC	100	275	13			
							3	FAILED	5000	OUTPUT TO GND	100	275	13			
							3	FAILED	5000	OUTPUT TO VCC	100	275	13			
							3	FAILED	5000	INPUT TO OUTPUT	100	275	13			
							3	FAILED	4900	VCC TO GND	100	275	13			
74ACT153	FSC	3	Digital, Multiplexer													
427	1186	SS	1500 Ohms	100E-12 F	50	N/R	3	FAILED	4150	INPUT TO VCC	100	275	13			
							3	FAILED	4950	INPUT TO GND	100	275	13			
							3	FAILED	5000	OUTPUT TO GND	100	275	13			
							3	FAILED	5000	OUTPUT TO VCC	100	275	13			
							3	FAILED	4900	INPUT TO OUTPUT	100	275	13			
							3	FAILED	5000	VCC TO GND	100	275	13			
74ACT157	FSC	2	Digital, Multiplexer													
427	1086	SS	1500 Ohms	100E-12 F	50	N/R	3	FAILED	4550	INPUT TO GND	100	275	13			
427	1086	SS	1500 Ohms	100E-12 F	40	N/R	3	FAILED	3400	INPUT TO VCC	100	275	13			
427	1086	SS	1500 Ohms	100E-12 F	50	N/R	3	FAILED	5000	OUTPUT TO GND	100	275	13			

RAC ESD Database

Part Number	Part	Part ESD		Description	Technology										
		Mfr	Class		CMOS										
74ACT157	FSC	2	Digital, Multiplexer												
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Number Pulses	Date Code	Test Result	Test Voltage	Test Pin Combination	Failure Criteria	Test Remarks	General Remarks		
	427	1086	SS	1500 Ohms	100E-12 F	50	N/R	3 FAILED	5000	OUTPUT TO VCC	100	275	13		
								3 FAILED	4450	INPUT TO OUTPUT	100	275	13		
								3 FAILED	4800	VCC TO GND	100	275	13		
74ACT158	FSC	2	Digital, Multiplexer												
	427	0986	SS	1500 Ohms	100E-12 F	50	N/R	3 FAILED	4450	INPUT TO GND	100	275	13		
	427	0986	SS	1500 Ohms	100E-12 F	40	N/R	3 FAILED	3800	INPUT TO VCC	100	275	13		
	427	0986	SS	1500 Ohms	100E-12 F	50	N/R	3 FAILED	5000	OUTPUT TO GND	100	275	13		
								3 FAILED	5000	OUTPUT TO VCC	100	275	13		
								3 FAILED	5000	INPUT TO OUTPUT	100	275	13		
								3 FAILED	4950	VCC TO GND	100	275	13		
74ACT175	FSC	3	Digital, Flip-Flop												
	427	0587	SS	1500 Ohms	100E-12 F	50	N/R	3 FAILED	4900	INPUT TO VCC	100	275	13		
								3 FAILED	5000	INPUT TO GND	100	275	13		
								3 FAILED	50000	OUTPUT TO VCC	100	275	13		
								3 FAILED	5000	OUTPUT TO GND	100	275	13		
								3 FAILED	5000	INPUT TO OUTPUT	100	275	13		
								3 FAILED	5000	VCC TO GND	100	275	13		
74ACT245	FSC	3	Digital, Transceiver												
	427	1286	SS	1500 Ohms	100E-12 F	50	N/R	3 FAILED	5000	INPUT TO GND	100	275	13		
								3 FAILED	4550	INPUT TO VCC	100	275	13		
								3 FAILED	5000	I-O TO GND	100	275	13		
								3 FAILED	5000	I-O TO VCC	100	275	13		

RAC ESD Database

Part		Part ISO		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part		Part	
------	--	----------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--

RAC ESD Database

[illegible]

RAC ESD Database

[illegible]

RAC ESD Database

Part Number	Part ESD		Part		Technology							
	Mfr	Class	Description		Advanced	STTL						
74F04	FSC	1	Digital, Inverter, Buffer									
Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Number Pulses	Number Date	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
170	0881	GN	1500 Ohms	100E-12 F	1	N/R	2	FAILED	1250 INPUT(1)(+) COM.(7)(-)	51	252	13
							1	FAILED	1250 INPUT(3)(+) COM.(7)(-)	51	252	13
							1	PASSED	1250 INPUT(3)(+) COM.(7)(-)	51	252	13
							2	FAILED	1250 INPUT(5)(+) COM.(7)(-)	51	252	13
							2	FAILED	1250 INPUT(9)(+) COM.(7)(-)	51	252	13
							2	FAILED	1250 INPUT(11)(+) COM.(7)(-)	51	252	13
							2	FAILED	1250 INPUT(13)(+) COM.(7)(-)	51	252	13
							1	PASSED	1250 COM(7)(+) OUT.(4)(-)	51	252	13
							1	PASSED	1250 COM(7)(+) OUT.(6)(-)	51	252	13
							1	PASSED	1250 COM(7)(+) OUT.(8)(-)	51	252	13
							1	PASSED	1250 COM(7)(+) OUT.(10)(-)	51	252	13
							1	PASSED	1250 COM(7)(+) OUT.(12)(-)	51	252	13
							2	FAILED	1250 INPUT(1)(+) OUT.(2)(-)	51	252	13
							2	FAILED	1250 INPUT(3)(+) OUT.(4)(-)	51	252	13
							2	FAILED	1250 INPUT(5)(+) OUT.(6)(-)	51	252	13
							1	PASSED	1250 INPUT(9)(+) OUT.(8)(-)	51	252	13
							2	FAILED	1250 IN.(11)(+) OUT.(10)(-)	51	252	13
							2	FAILED	1250 IN.(13)(+) OUT.(12)(-)	51	252	13
							1	PASSED	1250 VCC(-) COM.(7)(+)	51	252	13
171	N/R	GN	1500 Ohms	100E-12 F	1	N/R	2	FAILED	1250 INPUT(1)(+) COM.(7)(-)	4	252	13
							2	FAILED	1250 INPUT(3)(+) COM.(7)(-)	4	252	13
							2	FAILED	1250 INPUT(5)(+) COM.(7)(-)	4	252	13
							2	FAILED	1250 INPUT(9)(+) COM.(7)(-)	4	252	13
							2	FAILED	1250 IN.(11)(+) COM.(7)(-)	4	252	13
							2	FAILED	1250 IN.(13)(+) COM.(7)(-)	4	252	13
							1	PASSED	1250 COM.(7)(+) OUT.(2)(-)	4	252	13
							1	PASSED	1250 COM.(7)(+) OUT.(4)(-)	4	252	13
							1	PASSED	1250 COM.(7)(+) OUT.(6)(-)	4	252	13
							1	PASSED	1250 COM.(7)(-) OUT.(8)(-)	4	252	13
							1	PASSED	1250 COM.(7)(+) OUT.(10)(-)	4	252	13
							1	PASSED	1250 COM.(7)(+) OUT.(12)(-)	4	252	13
							2	FAILED	1250 IN.(1)(+) OUT.(2)(-)	4	252	13

RAC ESD Database

Part Number 74F04	Part ESD		Part Description		Technology											
	Mfr	Class	FSC	1	Digital, Inverter, Buffer					Advanced STTL						
					Test Date	Test Type	Resistance	Capacitance	Pulses	Number	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
171	N/R	GN	1500 Ohms	100E-12 F	1	N/R	2	FAILED	1250	IN.(3)(+)	OUT.(4)(-)	4	252	13		
							2	FAILED	1250	IN.(5)(+)	OUT.(6)(-)	4	252	13		
							2	FAILED	1250	IN.(9)(+)	OUT.(8)(-)	4	252	13		
							2	FAILED	1250	IN.(11)(+)	OUT.(10)(-)	4	252	13		
							2	FAILED	1250	IN.(13)(+)	OUT.(12)(-)	4	252	13		
							1	PASSED	1250	COM.(7)(+)	VCC(-)	4	252	13		
	172	N/R	GN	1500 Ohms	100E-12 F	1	N/R	2	FAILED	1250	COM.(7)(+)	OUT.(2)(-)	4	252	13	
								1	PASSED	5000	COM.(7)(+)	OUT.(4)(-)	4	252	13	
								1	PASSED	5000	COM.(7)(+)	OUT.(6)(-)	4	252	13	
								1	PASSED	5000	COM.(7)(+)	OUT.(8)(-)	4	252	13	
							1	PASSED	5000	COM.(7)(+)	OUT.(10)(-)	4	252	13		
							2	FAILED	1250	COM.(7)(+)	OUT.(12)(-)	4	252	13		
							1	PASSED	5000	COM.(7)(+)	VCC(-)	4	252	13		
173		N/R	GN	1500 Ohms	100E-12 F	1	N/R	2	FAILED	1250	IN.(1)(+)	COM.(7)(-)	51	252	13	
								2	FAILED	1250	IN.(3)(+)	COM.(7)(-)	51	252	13	
								2	FAILED	1250	IN.(5)(+)	COM.(7)(-)	51	252	13	
							2	FAILED	1250	IN.(9)(+)	COM.(7)(-)	51	252	13		
							2	FAILED	1250	IN.(11)(+)	COM.(7)(-)	51	252	13		
							2	FAILED	1250	IN.(13)(+)	COM.(7)(-)	51	252	13		
							2	PASSED	1250	COM.(7)(+)	OUT.(2)(-)	51	252	13		
							2	PASSED	1250	COM.(7)(+)	OUT.(4)(-)	51	252	13		
							2	PASSED	1250	COM.(7)(+)	OUT.(6)(-)	51	252	13		
							2	PASSED	1250	COM.(7)(+)	OUT.(8)(-)	51	252	13		
						2	PASSED	1250	COM.(7)(+)	OUT.(10)(-)	51	252	13			
						2	PASSED	1250	COM.(7)(+)	OUT.(12)(-)	51	252	13			
						2	FAILED	1250	IN.(1)(+)	OUT.(2)(-)	51	252	13			
						2	FAILED	1250	IN.(3)(+)	OUT.(4)(-)	51	252	13			
						2	FAILED	1250	IN.(5)(+)	OUT.(6)(-)	51	252	13			
						2	FAILED	1250	IN.(9)(+)	OUT.(8)(-)	51	252	13			
						2	FAILED	1250	IN.(11)(+)	OUT.(10)(-)	51	252	13			
						2	FAILED	1250	IN.(13)(+)	OUT.(12)(-)	51	252	13			

RAC ESD Database

Part Number 74F04	Part ESD		Part		Technology																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
	Mfr	Class	Description																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	FSC	1	Digital, Inverter, Buffer																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test

RAC ESD Database

Part Number (Cont'd)	Part ESD		Part		Technology						
	Mfr	Class	Description	Advanced STTL							
	FSC	1	Digital, Inverter, Buffer	Failure Criteria	General Remarks						
Test Source	Test Date	Test Type	Resistance	Capacitance	Number	Test Result	Pin Combination	Test Voltage	Test Result	Failure Criteria	General Remarks
179	N/R	SS	1500 Ohms	100E-12 F	1	N/R	1 FAILED	400 IN.(9)(+) APTT(-)	4	252	27
					1	FAILED	600 IN.(11)(+) APTT(-)	4	252	27	
					1	FAILED	500 IN.(13)(+) APTT(-)	4	252	27	
					1	PASSED	5000 OUT.(2)(+) APTT(-)	4	252	27	
					1	PASSED	5000 OUT.(4)(+) APTT(-)	4	252	27	
					1	PASSED	5000 OUT.(6)(+) APTT(-)	4	252	27	
					1	PASSED	5000 OUT.(8)(+) APTT(-)	4	252	27	
					1	PASSED	5000 OUT.(10)(+) APTT(-)	4	252	27	
					1	PASSED	5000 OUT.(12)(+) APTT(-)	4	252	27	
					1	PASSED	5000 VCC(14)(+) APTT(-)	4	252	27	
180	N/R	SS	1500 Ohms	100E-12 F	1	N/R	1 FAILED	400 IN.(1)(+) APTT(-)	51	252	27
					1	FAILED	400 IN.(3)(+) APTT(-)	51	252	27	
					1	FAILED	400 IN.(5)(+) APTT(-)	51	252	27	
					1	FAILED	300 IN.(9)(+) APTT(-)	51	252	27	
					1	FAILED	400 IN.(11)(+) APTT(-)	51	252	27	
					1	FAILED	400 IN.(13)(+) APTT(-)	51	252	27	
					2	PASSED	5000 OUT.(2)(+) APTT(-)	51	252	27	
					1	PASSED	5000 OUT.(6)(+) APTT(-)	51	252	27	
					1	PASSED	5000 OUT.(8)(+) APTT(-)	51	252	27	
					1	PASSED	5000 OUT.(10)(+) APTT(-)	51	252	27	
					1	PASSED	5000 OUT.(12)(+) APTT(-)	51	252	27	
					1	PASSED	5000 VCC(14)(+) APTT(-)	51	252	27	
181	0981	SS	1500 Ohms	100E-12 F	1	N/R	1 PASSED	1250 IN.(1)(+)	51	262	0
					1	PASSED	1250 IN.(3)(+)	51	262	0	
					1	FAILED	800 IN.(5)(+)	51	262	0	
					1	PASSED	1250 IN.(9)(+)	51	262	0	
					1	PASSED	1250 IN.(11)(+)	51	262	0	
					1	FAILED	1250 IN.(13)(+)	51	262	0	
					1	PASSED	1250 OUT.(2)(+)	51	262	0	
					1	PASSED	1250 OUT.(4)(+)	51	262	0	
					1	PASSED	1250 OUT.(6)(+)	51	262	0	

RAC ESD Database

Part Number (Cont'd)	Part ESD	Part	Mfr Class		Description		Technology					
181	FSC	1	Digital, Inverter, Buffer				Advanced STTL					
Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Number Date	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
181	0981	SS	1500 Ohms	100E-12 F	1	N/R	1	PASSED	1250 OUT.(8)(+)	51	262	0
							1	PASSED	1250 OUT.(10)(+)	51	262	0
							1	PASSED	1250 OUT.(12)(+)	51	262	0
							1	PASSED	1250 VCC(14)(+)	51	262	0
182	N/R	SS	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1800 IN.(1)(+)	4	262	0
							1	FAILED	800 IN.(3)(+)	4	262	0
							1	FAILED	700 IN.(5)(+)	4	262	0
							1	FAILED	1800 IN.(9)(+)	4	262	0
							1	FAILED	1400 IN.(11)(+)	4	262	0
							1	FAILED	1400 IN.(13)(+)	4	262	0
							1	FAILED	5000 OUT.(2)(+)	4	262	0
							1	FAILED	5000 OUT.(4)(+)	4	262	0
							1	PASSED	5000 OUT.(6)(+)	4	262	0
							1	PASSED	5000 OUT.(8)(+)	4	262	0
							1	PASSED	5000 OUT.(10)(+)	4	262	0
							1	PASSED	5000 OUT.(12)(+)	4	262	0
							1	PASSED	5000 VCC(14)(+)	4	262	0
183	N/R	SS	1500 Ohms	100E-12 F	1	N/R	1	FAILED	3000 IN.(1)(+)	51	262	0
							1	FAILED	2200 IN.(3)(+)	51	262	0
							1	FAILED	2200 IN.(5)(+)	51	262	0
							1	FAILED	1400 IN.(9)(+)	51	262	0
							1	FAILED	900 IN.(11)(+)	51	262	0
							1	FAILED	900 IN.(13)(+)	51	262	0
							1	PASSED	5000 OUT.(2)(+)	51	262	0
							1	PASSED	5000 OUT.(4)(+)	51	262	0
							1	PASSED	5000 OUT.(6)(+)	51	262	0
							1	PASSED	5000 OUT.(8)(+)	51	262	0
							1	PASSED	5000 OUT.(10)(+)	51	262	0
							1	PASSED	5000 OUT.(12)(+)	51	262	0
							1	PASSED	5000 VCC(14)(+)	51	262	0
184	0981	SS	1500 Ohms	100E-12 F	10	N/R	1	FAILED	60 IN.(11)(+)	51	252	13

RAC ESD Database

Technology										Advanced STILL	
Lot	Part	Lot	Part	Lot	Part	Lot	Part	Lot	Part	Lot	Part
184	0981 SS	1500 Ohms	100E-12 F	100 N/R	1 PASSED	3 FAILED	60 IN.(1)(+) APTT(-)	51	252	13	13
185	0981 SS	1500 Ohms	100E-12 F	100 N/R	1 PASSED	1 PASSED	60 IN.(1)(+) APTT(-)	51	252	13	13
186	0981 GN	1500 Ohms	100E-12 F	30 N/R	5 FAILED	5 FAILED	60 IN.(1)(+) APTT(-)	4	252	13	13
187	0981 GN	1500 Ohms	100E-12 F	10 N/R	7 FAILED	7 FAILED	120 IN.(1)(+) APTT(-)	4	252	13	13
188	0981 GN	1500 Ohms	100E-12 F	100 N/R	1 FAILED	1 FAILED	120 IN.(1)(+) APTT(-)	4	252	13	13
189	0981 SS	1500 Ohms	100E-12 F	300 N/R	1 PASSED	1 PASSED	160 IN.(1)(+) APTT(-)	4	252	13	13
190	0981 GN	1500 Ohms	100E-12 F	10 N/R	4 FAILED	4 FAILED	160 IN.(1)(+) APTT(-)	4	252	13	13
191	0981 SS	1500 Ohms	100E-12 F	30 N/R	1 FAILED	1 FAILED	240 IN.(9)(+) APTT(-)	51	252	13	13
192	0981 SS	1500 Ohms	100E-12 F	300 N/R	1 FAILED	1 FAILED	240 IN.(9)(+) APTT(-)	51	252	13	13
193	0981 GN	1500 Ohms	100E-12 F	300 N/R	2 FAILED	2 FAILED	480 IN.(5)(+)	51	262	0	0
194	0981 SS	1500 Ohms	100E-12 F	30 N/R	1 PASSED	1 PASSED	480 IN.(5)(+)	51	262	0	0
195	0981 SS	1500 Ohms	100E-12 F	300 N/R	1 PASSED	1 PASSED	640 IN.(5)(+)	51	262	0	0
196	0981 GN	1500 Ohms	100E-12 F	300 N/R	1 PASSED	1 PASSED	240 IN.(5)(+)	51	262	0	0
197	0981 GN	1500 Ohms	100E-12 F	100 N/R	1 PASSED	1 PASSED	480 IN.(5)(+)	51	262	0	0
198	0981 GN	1500 Ohms	100E-12 F	10 N/R	3 PASSED	3 PASSED	640 IN.(5)(+)	51	262	0	0
199	0981 GN	1500 Ohms	100E-12 F	30 N/R	1 PASSED	1 PASSED	640 IN.(5)(+)	51	262	0	0
200	0981 SS	1500 Ohms	100E-12 F	300 N/R	4 PASSED	4 PASSED	560 IN.(5)(+)	4	262	15	15

RAC ESD Database

Part Number	Part ESD		Part Description	Test				Number		Date		Pulses		Code		Devices		Test Result		Voltage		Pin Combination		Technology		Failure Test		General Remarks	
	Mfr	Class		Test Date	Test Type	Resistance	Capacitance																						
74F113	FSC	1	Digital, Flip-Flop	0986	SS	1500 Ohms	100E-12 F	20	8635	3	FAILED	1000	INPUT TO GND.	61	204	13	Advanced STTL	Advanced STTL	61	204	13								
74F138	FSC	1	Digital, Decoder	0686	SS	1500 Ohms	100E-12 F	20	8614	3	FAILED	1000	INPUT TO GND.	61	204	13	Advanced STTL	Advanced STTL	61	204	13								
74F139	FSC	1	Digital, Decoder	0786	SS	1500 Ohms	100E-12 F	20	8621	3	FAILED	1000	INPUT TO GND.	61	204	13	Advanced STTL	Advanced STTL	61	204	13								
74F151	FSC	1	Digital, Multiplexer	0686	SS	1500 Ohms	100E-12 F	20	8620	3	FAILED	1000	INPUT TO GND.	61	204	13	Advanced STTL	Advanced STTL	61	204	13								
74F153	FSC	1	Digital, Multiplexer	0886	SS	1500 Ohms	100E-12 F	30	8630	3	FAILED	2000	INPUT TO GND.	61	204	13	Advanced STTL	Advanced STTL	61	204	13								
74F157	FSC	1	Digital, Multiplexer	0786	SS	1500 Ohms	100E-12 F	20	8622	3	FAILED	1000	INPUT TO GND.	61	204	13	Advanced STTL	Advanced STTL	61	204	13								
74F158	FSC	1	Digital, Multiplexer	1086	SS	1500 Ohms	100E-12 F	20	8623	3	FAILED	1000	INPUT TO GND.	61	204	13	Advanced STTL	Advanced STTL	61	204	13								
74F160	FSC	1	Digital, Counter/Divider	0686	SS	1500 Ohms	100E-12 F	30	8425	3	FAILED	2000	INPUT TO GND.	61	204	13	Advanced STTL	Advanced STTL	61	204	13								

RAC ESD Database

Part Number	Part ESD		Part Description	Technology	
	Mfr	Class		Advanced STTL	General
74F161	FSC	1	Digital, Counter/Divider	Advanced STTL	13
	Test Date	Test Type	Test Resistance	Test Voltage	Test Pin Combination
	426	1086 SS	1500 Ohms	100E-12 F	2000 INPUT TO GND.
				3 FAILED	
				3	204
				61	204
				13	
74F163	FSC	1	Digital, Counter/Divider	Advanced STTL	13
	426	1286 SS	1500 Ohms	100E-12 F	2000 INPUT TO GND.
				3 FAILED	
				3	204
				61	204
				13	
74F164	FSC	1	Digital, Register, Shift	Advanced STTL	13
	426	0686 SS	1500 Ohms	100E-12 F	2000 INPUT TO GND.
				3 FAILED	
				3	204
				61	204
				13	
74F168	FSC	1	Digital, Counter/Divider	Advanced STTL	13
	426	1086 SS	1500 Ohms	100E-12 F	1000 INPUT TO GND.
				3 FAILED	
				3	204
				61	204
				13	
74F169	FSC	1	Digital, Counter/Divider	Advanced STTL	13
	426	1086 SS	1500 Ohms	100E-12 F	1000 INPUT TO GND.
				3 FAILED	
				3	204
				61	204
				13	
74F174	FSC	1	Digital, Flip-Flop	Advanced STTL	13
	426	0986 SS	1500 Ohms	100E-12 F	1000 INPUT TO GND.
				3 FAILED	
				3	204
				61	204
				13	
74F175	FSC	1	Digital, Flip-Flop	Advanced STTL	13
	198	0881 GN	1500 Ohms	100E-12 F	1250 IN.(1)(+) COM.(8)(-)
				1 N/R	1250 IN.(4)(+) COM.(8)(-)
				1 PASSED	1250 IN.(5)(+) COM.(8)(-)
				2 FAILED	
				51	252
				51	252
				51	252

RAC ESD Database

Test				Test				Test				Test			
Source	Date	Type	Resistance	Capacitance	Pulses	Code	Devices	Result	Voltage	Pin	Combination	Criteria	Remarks	General	Remarks
199	N/R	GN	1500 Ohms	100E-12 F	1	N/R	1	1	1250 IN.(9)(+)	COM.(8)(-)	51	252	13		
								1 PASSED	1250 IN.(9)(+)	COM.(8)(-)	51	252	13		
								1 PASSED	1250 IN.(13)(+)	COM.(8)(-)	51	252	13		
								1 PASSED	1250 IN.(13)(+)	COM.(8)(-)	51	252	13		
								1 PASSED	1250 OUT.(2)(+)	COM.(8)(-)	51	252	13		
								1 PASSED	1250 OUT.(3)(+)	COM.(8)(-)	51	252	13		
								1 PASSED	1250 OUT.(6)(+)	COM.(8)(-)	51	252	13		
								1 PASSED	1250 OUT.(7)(+)	COM.(8)(-)	51	252	13		
								1 PASSED	1250 OUT.(10)(+)	COM.(8)(-)	51	252	13		
								1 PASSED	1250 OUT.(11)(+)	COM.(8)(-)	51	252	13		
								1 PASSED	1250 OUT.(14)(+)	COM.(8)(-)	51	252	13		
								1 PASSED	1250 OUT.(15)(+)	COM.(8)(-)	51	252	13		
								1 PASSED	1250 IN.(4)(+)	OUT.(2)(-)	51	252	13		
								1 PASSED	1250 IN.(4)(+)	OUT.(3)(-)	51	252	13		
								2 FAILED	1250 IN.(5)(+)	OUT.(6)(-)	51	252	13		
								1 PASSED	1250 IN.(5)(+)	OUT.(7)(-)	51	252	13		
								2 FAILED	1250 IN.(12)(+)	OUT.(10)(-)	51	252	13		
								1 FAILED	1250 IN.(12)(+)	OUT.(11)(-)	51	252	13		
								1 PASSED	1250 IN.(12)(+)	OUT.(11)(-)	51	252	13		
								1 PASSED	1250 IN.(13)(+)	OUT.(14)(-)	51	252	13		
								1 FAILED	1250 IN.(13)(+)	OUT.(15)(-)	51	252	13		
								1 PASSED	1250 IN.(13)(+)	OUT.(15)(-)	51	252	13		
								2 PASSED	1250 VCC(16)(+)	COM.(8)(-)	51	252	13		
199	N/R	GN	1500 Ohms	100E-12 F	1	N/R	1	1	1250 IN.(4)(+)	COM.(8)(-)	4	252	13		
								2 FAILED	1250 IN.(1)(+)	OUT.(2)(-)	4	252	13		
200	N/R	GN	1500 Ohms	100E-12 F	1	N/R	1	1	5000 IN.(1)(+)	COM.(8)(-)	4	252	13		
								2 FAILED	5000 IN.(4)(+)	COM.(8)(-)	4	252	13		
								2 FAILED	5000 IN.(5)(+)	COM.(8)(-)	4	252	13		
								2 FAILED	5000 IN.(9)(+)	COM.(8)(-)	4	252	13		
								2 FAILED	5000 IN.(12)(+)	COM.(8)(-)	4	252	13		
								2 FAILED	5000 IN.(13)(+)	COM.(8)(-)	4	252	13		
								1 PASSED	5000 OUT.(2)(+)	COM.(8)(-)	4	252	13		

RAC ESD Database

Part ESD Part				Technology			
Source Date Type Resistance Capacitance Pulses Code Devices				Advanced STTL			
200	N/R	GN	1500 Ohms	100E-12 F	1	N/R	1
Test Test Test Test Test				Test Test Test Test Test			
Voltage Pin Combination				Voltage Pin Combination			
1	PASSED	5000	OUT.(3)(+)	COM.(8)(-)	4	252	13
1	PASSED	5000	OUT.(6)(+)	COM.(8)(-)	4	252	13
1	PASSED	5000	OUT.(7)(+)	COM.(8)(-)	4	252	13
1	PASSED	5000	OUT.(10)(+)	COM.(8)(-)	4	252	13
1	PASSED	5000	OUT.(11)(+)	COM.(8)(-)	4	252	13
1	PASSED	5000	OUT.(14)(+)	COM.(8)(-)	4	252	13
1	PASSED	5000	OUT.(15)(+)	COM.(8)(-)	4	252	13
2	FAILED	5000	IN.(4)(+)	OUT.(2)(-)	4	252	13
2	FAILED	5000	IN.(5)(+)	OUT.(7)(-)	4	252	13
2	FAILED	5000	IN.(9)(+)	OUT.(2)(-)	4	252	13
2	FAILED	5000	IN.(12)(+)	OUT.(11)(-)	4	252	13
2	FAILED	5000	IN.(13)(+)	OUT.(7)(-)	4	252	13
1	PASSED	5000	VCC(16)(+)	COM.(8)(-)	4	252	13
201	N/R	GN	1500 Ohms	100E-12 F	1	N/R	1
2	FAILED	1250	IN.(2)(+)	COM.(8)(-)	51	252	13
2	PASSED	1250	IN.(4)(+)	COM.(8)(-)	51	252	13
2	PASSED	1250	IN.(5)(+)	COM.(8)(-)	51	252	13
2	PASSED	1250	IN.(9)(+)	COM.(8)(-)	51	252	13
2	PASSED	1250	IN.(12)(+)	COM.(8)(-)	51	252	13
1	PASSED	1250	IN.(13)(+)	COM.(8)(-)	51	252	13
1	FAILED	1250	IN.(13)(+)	COM.(8)(-)	51	252	13
2	PASSED	1250	OUT.(2)(+)	COM.(8)(-)	51	252	13
2	PASSED	1250	OUT.(3)(+)	COM.(8)(-)	51	252	13
2	PASSED	1250	OUT.(6)(+)	COM.(8)(-)	51	252	13
2	PASSED	1250	OUT.(7)(+)	COM.(8)(-)	51	252	13
2	PASSED	1250	OUT.(10)(+)	COM.(8)(-)	51	252	13
2	PASSED	1250	OUT.(11)(+)	COM.(8)(-)	51	252	13
2	PASSED	1250	OUT.(14)(+)	COM.(8)(-)	51	252	13
2	PASSED	1250	OUT.(15)(+)	COM.(8)(-)	51	252	13
2	FAILED	1250	IN.(1)(+)	OUT.(2)(-)	51	252	13
2	PASSED	1250	IN.(4)(+)	OUT.(2)(-)	51	252	13
2	PASSED	1250	IN.(5)(+)	OUT.(7)(-)	51	252	13
1	FAILED	1250	IN.(9)(+)	OUT.(7)(-)	51	252	13

RAC ESD Database

Part Number 74F175	Part ESD Mtr FSC	Class 1	Description Digital, Flip-Flop	Technology Advanced STTL									
				Test		Test		Test		Failure Criteria	Test Remarks	General Remarks	
				Test	Test	Test	Test	Test					
				Source Date	Type	Resistance	Capacitance	Pulses	Number Code				Devices
201	N/R	GN	1500 Ohms	100E-12 F	1 N/R	1 PASSED	1250 IN.(9)(+) OUT.(7)(-)	51	252	13			
						2 PASSED	1250 IN.(12)(+) OUT.(10)(-)	51	252	13			
						2 PASSED	1250 IN.(13)(+) OUT.(15)(-)	51	252	13			
						2 PASSED	1250 VCC(16)(+) COM.(8)(-)	51	252	13			
202	N/R	GN	1500 Ohms	100E-12 F	1 N/R	2 FAILED	5000 IN.(4)(+) COM.(8)(-)	51	252	13			
						2 FAILED	5000 IN.(5)(+) COM.(8)(-)	51	252	13			
						2 FAILED	5000 IN.(9)(+) COM.(8)(-)	51	252	13			
						2 FAILED	5000 IN.(12)(+) COM.(8)(-)	51	252	13			
						1 FAILED	5000 IN.(13)(+) COM.(8)(-)	51	252	13			
						2 PASSED	5000 OUT.(2)(+) COM.(8)(-)	51	252	13			
						2 PASSED	5000 OUT.(3)(+) COM.(8)(-)	51	252	13			
						2 PASSED	5000 OUT.(6)(+) COM.(8)(-)	51	252	13			
						2 PASSED	5000 OUT.(7)(+) COM.(8)(-)	51	252	13			
						2 PASSED	5000 OUT.(10)(+) COM.(8)(-)	51	252	13			
						2 PASSED	5000 OUT.(11)(+) COM.(8)(-)	51	252	13			
						2 PASSED	5000 OUT.(14)(+) COM.(8)(-)	51	252	13			
						2 PASSED	5000 OUT.(15)(+) COM.(8)(-)	51	252	13			
						2 FAILED	5000 IN.(4)(+) OUT.(2)(-)	51	252	13			
						2 FAILED	5000 IN.(5)(+) OUT.(7)(-)	51	252	13			
						1 FAILED	5000 IN.(9)(+) OUT.(7)(-)	51	252	13			
						2 FAILED	5000 IN.(12)(+) OUT.(10)(-)	51	252	13			
						2 FAILED	5000 IN.(13)(+) OUT.(15)(-)	51	252	13			
						2 PASSED	5000 VCC(16)(+) COM.(8)(-)	51	252	13			
203	0881	GN	1500 Ohms	100E-12 F	1 N/R	2 FAILED	1000 IN.(5)(+) COM.(8)(-)	51	252	13			
						8 PASSED	1000 IN.(5)(+) COM.(8)(-)	51	252	13			
204	N/R	GN	1500 Ohms	100E-12 F	1 N/R	10 PASSED	1000 IN.(1)(+) OUT.(2)(-)	4	252	13			
205	N/R	GN	1500 Ohms	100E-12 F	1 N/R	2 FAILED	4000 IN.(4)(+) COM.(8)(-)	4	252	13			
206	N/R	GN	1500 Ohms	100E-12 F	1 N/R	2 FAILED	1000 IN.(1)(+) COM.(8)(-)	51	252	13			

RAC ESD Database

Part Number	Part ESD Mfr Class	Part Description	Technology									
(Cont'd)			Advanced STTL									
74F175	FSC	1 Digital, Flip-Flop										
Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Pulses	Number Devices	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
207	0981	SS	1500 Ohms	100E-12 F	1	N/R	1 FAILED	500 IN.(1)(+)	APTT(-)	51	252	13
							1 FAILED	800 IN.(4)(+)	APTT(-)	51	252	13
							1 FAILED	700 IN.(5)(+)	APTT(-)	51	252	13
							1 FAILED	600 IN.(9)(+)	APTT(-)	51	252	13
							1 FAILED	1250 IN.(12)(+)	APTT(-)	51	252	13
							1 FAILED	1000 IN.(13)(-)	APTT(-)	51	252	13
							1 PASSED	1250 OUT.(2)(+)	APTT(-)	51	252	13
							1 PASSED	1250 OUT.(3)(+)	APTT(-)	51	252	13
							1 PASSED	1250 OUT.(6)(+)	APTT(-)	51	252	13
							1 PASSED	1250 OUT.(7)(+)	APTT(-)	51	252	13
							1 PASSED	1250 OUT.(10)(+)	APTT(-)	51	252	13
							1 PASSED	1250 OUT.(11)(+)	APTT(-)	51	252	13
							1 PASSED	1250 OUT.(14)(+)	APTT(-)	51	252	13
							1 PASSED	1250 OUT.(15)(+)	APTT(-)	51	252	13
							1 PASSED	1250 VCC(16)(+)	APTT(-)	51	252	13
208	N/R	SS	1500 Ohms	100E-12 F	1	N/R	1 FAILED	1800 IN.(1)(+)	APTT(-)	4	252	13
							4 FAILED	700 IN.(4)(+)	APTT(-)	4	252	13
							1 FAILED	500 IN.(5)(+)	APTT(-)	4	252	13
							1 FAILED	1800 IN.(9)(+)	APTT(-)	4	252	13
							1 FAILED	2200 IN.(12)(+)	APTT(-)	4	252	13
							1 FAILED	2600 IN.(13)(+)	APTT(-)	4	252	13
							1 PASSED	5000 OUT.(2)(+)	APTT(-)	4	252	13
							1 PASSED	5000 OUT.(3)(+)	APTT(-)	4	252	13
							1 PASSED	5000 OUT.(6)(+)	APTT(-)	4	252	13
							1 PASSED	5000 OUT.(7)(+)	APTT(-)	4	252	13
							1 PASSED	5000 OUT.(10)(+)	APTT(-)	4	252	13
							1 PASSED	5000 OUT.(11)(+)	APTT(-)	4	252	13
							1 PASSED	5000 OUT.(14)(+)	APTT(-)	4	252	13
							1 PASSED	5000 OUT.(15)(+)	APTT(-)	4	252	13
							1 PASSED	5000 VCC(16)(+)	APTT(-)	4	252	13
209	N/R	SS	1500 Ohms	100E-12 F	1	N/R	1 FAILED	500 IN.(1)(+)	APTT(-)	51	252	13

RAC ESD Database

Part Number (Cont'd)	Part ESD		Part		Technology	
	Mfr	Class	Description		Advanced	STTL
74F175	FSC	1	Digital, Flip-Flop			
	Test	Test	Test	Test	Test	General
	Source	Date	Type	Resistance	Capacitance	Remarks
	209	N/R	SS	1500 Ohms	100E-12 F	1 FAILED
						700 IN.(4)(+) APTT(-)
						1 FAILED
						3400 IN.(5)(+) APTT(-)
						1 FAILED
						300 IN.(9)(+) APTT(-)
						1 FAILED
						400 IN.(12)(+) APTT(-)
						1 FAILED
						800 IN.(13)(+) APTT(-)
						1 PASSED
						5000 OUT.(2)(+) APTT(-)
						1 PASSED
						5000 OUT.(3)(+) APTT(-)
						1 PASSED
						5000 OUT.(6)(+) APTT(-)
						1 PASSED
						5000 OUT.(7)(+) APTT(-)
						1 PASSED
						5000 OUT.(10)(+) APTT(-)
						1 PASSED
						5000 OUT.(11)(+) APTT(-)
						1 PASSED
						5000 OUT.(14)(+) APTT(-)
						1 PASSED
						5000 OUT.(15)(+) APTT(-)
						1 PASSED
						5000 VCC(16)(+) APTT(-)
210	0981	SS	1500 Ohms	100E-12 F	1 N/R	1 PASSED
						1250 IN.(1)(+)
						1 PASSED
						1250 IN.(4)(+)
						1 PASSED
						1250 IN.(5)(+)
						1 FAILED
						1000 IN.(9)(+)
						1 PASSED
						1250 INPUT(12)(+)
						1 PASSED
						1250 IN.(13)(+)
						1 PASSED
						1250 OUT.(2)(+)
						1 PASSED
						1250 OUT.(3)(+)
						1 PASSED
						1250 OUT.(6)(+)
						1 PASSED
						1250 OUT.(7)(+)
						1 PASSED
						1250 OUT.(10)(+)
						1 PASSED
						1250 OUT.(11)(+)
						1 PASSED
						1250 OUT.(14)(+)
						1 PASSED
						1250 OUT.(15)(+)
						1 PASSED
						1250 VCC(16)(+)
211	N/R	SS	1500 Ohms	100E-12 F	1 N/R	1 FAILED
						2200 IN.(1)(+)
						1 FAILED
						1400 IN.(4)(+)
						4
						262

RAC ESD Database

Part Number (Cont'd)	Part ESD Class	Part Description	Technology									
			Advanced STTL									
Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Number Pulses	Date Code	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
211	N/R	SS	1500 Ohms	100E-12 F	1	N/R	1 FAILED	2200	IN.(5)(+)	4	262	0
							1 FAILED	2200	IN.(9)(+)	4	262	0
							1 FAILED	3000	IN.(12)(+)	4	262	0
							1 FAILED	2200	IN.(13)(+)	4	262	0
							1 PASSED	5000	OUT.(2)(+)	4	262	0
							1 PASSED	5000	OUT.(3)(+)	4	262	0
							1 PASSED	5000	OUT.(6)(+)	4	262	0
							1 PASSED	5000	OUT.(7)(+)	4	262	0
							1 PASSED	5000	OUT.(10)(+)	4	262	0
							1 PASSED	5000	OUT.(11)(+)	4	262	0
							1 PASSED	5000	OUT.(14)(+)	4	262	0
							1 PASSED	5000	OUT.(15)(+)	4	262	0
							1 PASSED	5000	VCC(16)(+)	4	262	0
212	N/R	SS	1500 Ohms	100E-12 F	1	N/R	1 FAILED	4700	IN.(1)(+)	51	262	0
							1 FAILED	4600	IN.(4)(+)	51	262	0
							1 FAILED	4600	IN.(5)(+)	51	262	0
							1 FAILED	2200	IN.(9)(+)	51	262	0
							1 FAILED	3000	IN.(12)(+)	51	262	0
							1 FAILED	4600	IN.(13)(+)	51	262	0
							1 PASSED	5000	OUT.(2)(+)	51	262	0
							1 PASSED	5000	OUT.(3)(+)	51	262	0
							1 PASSED	5000	OUT.(6)(+)	51	262	0
							1 PASSED	5000	OUT.(7)(+)	51	262	0
							1 PASSED	5000	OUT.(10)(+)	51	262	0
							1 PASSED	5000	OUT.(11)(+)	51	262	0
							1 PASSED	5000	OUT.(14)(+)	51	262	0
							1 PASSED	5000	OUT.(15)(+)	51	262	0
							1 PASSED	5000	VCC(16)(+)	51	262	0
213	0981	SS	1500 Ohms	100E-12 F	100	N/R	1 FAILED	360	IN.(9)(+)	51	252	13
214	0981	SS	1500 Ohms	100E-12 F	100	N/R	1 FAILED	480	IN.(9)(+)	51	252	13

RAC ESD Database

Part Number 74F175	Part ES0		Part		Technology												
	Mfr FSC	Class 1	Description Digital, Flip-Flop										Advanced STTL				
			Test Source	Test Date	Test Type	Resistance	Capacitance	Pulses	Number	Date	Devices	Test Result	Test Voltage	Test Pin Combination	Failure Criteria	Test Remarks	General Remarks
	215	0981	GN	1500	Ohms	100E-12	F	30	N/R	1	PASSED	180	IN.(9)(+)	APTT(-)	51	252	13
	215	0981	GN	1500	Ohms	100E-12	F	100	N/R	1	PASSED	180	IN.(9)(+)	APTT(-)	51	252	13
	215	0981	GN	1500	Ohms	100E-12	F	300	N/R	1	PASSED	180	IN.(9)(+)	APTT(-)	51	252	13
	216	0981	SS	1500	Ohms	100E-12	F	30	N/R	1	FAILED	480	IN.(9)(+)	APTT(-)	51	252	13
	217	0981	GN	1500	Ohms	100E-12	F	30	N/R	1	FAILED	600	IN.(9)(+)	APTT(-)	51	252	13
	217	0981	GN	1500	Ohms	100E-12	F	100	N/R	1	FAILED	360	IN.(9)(+)	APTT(-)	51	252	13
	218	0981	GN	1500	Ohms	100E-12	F	30	N/R	1	FAILED	480	IN.(9)(+)	APTT(-)	51	252	13
	218	0981	GN	1500	Ohms	100E-12	F	300	N/R	1	PASSED	480	IN.(9)(+)	APTT(-)	51	252	13
	219	N/R	SS	1500	Ohms	100E-12	F	100	N/R	2	FAILED	300	IN.(5)(+)	APTT(-)	4	252	13
	220	N/R	GN	1500	Ohms	100E-12	F	30	N/R	1	FAILED	150	IN.(5)(+)	APTT(-)	4	252	13
	220	N/R	GN	1500	Ohms	100E-12	F	100	N/R	1	FAILED	150	IN.(5)(+)	APTT(-)	4	252	13
	221	N/R	SS	1500	Ohms	100E-12	F	10	N/R	1	FAILED	300	IN.(5)(+)	APTT(-)	4	252	13
	222	N/R	GN	1500	Ohms	100E-12	F	10	N/R	1	FAILED	300	IN.(5)(+)	APTT(-)	4	252	13
	222	N/R	GN	1500	Ohms	100E-12	F	30	N/R	1	FAILED	300	IN.(5)(+)	APTT(-)	4	252	13
	223	N/R	GN	1500	Ohms	100E-12	F	30	N/R	1	FAILED	400	IN.(5)(+)	APTT(-)	4	252	13
	223	N/R	GN	1500	Ohms	100E-12	F	100	N/R	4	FAILED	400	IN.(5)(+)	APTT(-)	4	252	13
	224	N/R	SS	1500	Ohms	100E-12	F	300	N/R	2	FAILED	320	IN.(9)(+)	APTT(-)	51	252	13

RAC ESD Database

Part Number	Part ESD		Part		Description		Technology	
	Mfr	Class	Test	Type	Resistance	Capacitance	Number	Date
74F175	FSC	1	Digital, Flip-Flop					
	Test	Source	Date	Type	Resistance	Capacitance	Number	Date
	224	N/R	SS	1500 Ohms	100E-12 F	300 N/R	3	N/R
	225	0981	SS	1500 Ohms	100F-12 F	300 N/R	5	N/R
	226	N/R	SS	1500 Ohms	100E-12 F	30 N/R	1	N/R
	226	N/R	SS	1500 Ohms	100E-12 F	300 N/R	2	N/R
	227	N/R	SS	1500 Ohms	100E-12 F	10 N/R	1	N/R
	228	N/R	SS	1500 Ohms	100E-12 F	300 N/R	1	N/R
	229	N/R	GN	1500 Ohms	100E-12 F	300 N/R	1	N/R
	230	N/R	GN	1500 Ohms	100E-12 F	300 N/R	1	N/R
	426	0786	SS	1500 Ohms	100E-12 F	10 N/R	3	N/R
74F190	FSC	1	Digital, Counter/Divider					
	426	0986	SS	1500 Ohms	100E-12 F	20 8503	3	FAILED
74F191	FSC	1	Digital, Counter/Divider					
	426	1086	SS	1500 Ohms	100E-12 F	20 8637	3	FAILED
74F192	FSC	1	Digital, Counter/Divider					
	426	0986	SS	1500 Ohms	100E-12 F	30 8446	3	FAILED
74F193	FSC	1	Digital, Counter/Divider					
	426	1086	SS	1500 Ohms	100E-12 F	30 8635	3	FAILED

Failure	Test	General
Criteria	Remarks	Remarks
51	252	13
51	262	0
4	262	15
4	262	15
4	262	0
4	262	0
4	262	16
4	262	0
61	204	13
Advanced STTL		
61	204	13
Advanced STTL		
61	204	13
Advanced STTL		
61	204	13
Advanced STTL		
61	204	13

RAC ESD Database

Part Number	Part		Part		Technology	
	Mfr	Class	Description		Advanced STTL	
74F20	FSC	1	Digital, Gate			
	Test Source	Test Date	Test Type	Resistance	Capacitance	Test Result
	049	0681	GN	1500 Ohms	100E-12 F	1 FAILED
						500 INPUT(4)(+) VCC(14)(-)
	426	0786	SS	1500 Ohms	100E-12 F	10 N/R
						3 FAILED
	426	0686	SS	1500 Ohms	100E-12 F	20 N/R
						3 FAILED
						1000 INPUT TO GND.
74F240	FSC	1	Digital, Line/Bus Driver			
	426	0686	SS	1500 Ohms	100E-12 F	10 8616
						3 FAILED
						600 INPUT TO GND.
74F241	FSC	1	Digital, Line/Bus Driver			
	426	1086	SS	1500 Ohms	100E-12 F	10 8637
						3 FAILED
						600 INPUT TO GND.
74F243	FSC	1	Digital, Transceiver			
	426	0986	SS	1500 Ohms	100E-12 F	20 8450
						3 FAILED
						1000 INPUT TO GND.
74F244	FSC	1	Digital, Line/Bus Driver			
	426	0886	SS	1500 Ohms	100E-12 F	20 8629
						3 FAILED
						1000 INPUT TO GND.
74F245	FSC	1	Digital, Transceiver			
	426	0886	SS	1500 Ohms	100E-12 F	30 8629
						3 FAILED
						2000 INPUT TO GND.
74F251	FSC	1	Digital, Multiplexer			
	426	1186	SS	1500 Ohms	100E-12 F	10 8414
						3 FAILED
						600 INPUT TO GND.

RAC ESD Database

Part Number	Part ESD		Part		Technology	
	Mfr	Class	Description		Advanced STTL	General
74F253	FSC	1	Digital, Multiplexer			
	Test Date	Test Type	Test Resistance	Number Date	Test Result	Failure Criteria
	426	1186 SS	1500 Ohms	20 8637	3 FAILED	61 204
			100E-12 F			13
74F257	FSC	1	Digital, Multiplexer			Advanced STTL
	426	1186 SS	1500 Ohms	20 8621	3 FAILED	61 204
			100E-12 F			13
74F258	FSC	1	Digital, Multiplexer			Advanced STTL
	426	1186 SS	1500 Ohms	10 8631	3 FAILED	61 204
			100E-12 F			13
74F283	FSC	1	Digital, Counter/Divider			Advanced STTL
	426	1286 SS	1500 Ohms	10 N/R	3 FAILED	61 204
			100E-12 F			13
74F299	FSC	1	Digital, Register, Shift			Advanced STTL
	426	0786 SS	1500 Ohms	20 8622	3 FAILED	61 204
			100E-12 F			13
74F32	FSC	1	Digital, Gate			Advanced STTL
	426	0786 SS	1500 Ohms	30 8624	3 FAILED	61 204
			100E-12 F			13
74F322	FSC	1	Digital, Arithmetic, Logic Unit			Advanced STTL
	426	0986 SS	1500 Ohms	20 8612	3 FAILED	61 204
			100E-12 F			13
74F323	FSC	1	Digital, Register, Shift			Advanced STTL
	426	1086 SS	1500 Ohms	20 8627	3 FAILED	61 204
			100E-12 F			13

RAC ESD Database

Part Number	Part ESD		Part		Technology	
	Mfr	Class	Description		Advanced STTL	Advanced STTL
74F350	FSC	1	Digital, Register, Shift			
	Test Date	Test Type	Test Resistance	Test Capacitance	Number Date	Test Result
	426	0986 SS	1500 Ohms	100E-12 F	10 8604	3 FAILED
						600 INPUT TO GND.
74F352	FSC	1	Digital, Multiplexer			Advanced STTL
	426	0986 SS	1500 Ohms	100E-12 F	20 8452	3 FAILED
						1000 INPUT TO GND.
74F353	FSC	1	Digital, Multiplexer			Advanced STTL
	426	1086 SS	1500 Ohms	100E-12 F	20 8616	3 FAILED
						1000 INPUT TO GND.
74F373	FSC	1	Digital, Latch			Advanced STTL
	426	0886 SS	1500 Ohms	100E-12 F	20 8628	3 FAILED
						1000 INPUT TO GND.
74F374	FSC	1	Digital, Flip-Flop			Advanced STTL
	426	0986 SS	1500 Ohms	100E-12 F	10 8635	3 FAILED
						600 INPUT TO GND.
74F378	FSC	1	Digital, Flip-Flop, D			Advanced STTL
	426	0986 SS	1500 Ohms	100E-12 F	30 8636	3 FAILED
						2000 INPUT TO GND.
74F379	FSC	1	Digital, Flip-Flop, D			Advanced STTL
	426	1086 SS	1500 Ohms	100E-12 F	10 8634	3 FAILED
						600 INPUT TO GND.
74F398	FSC	1	Digital, Multiplexer			Advanced STTL
	426	0686 SS	1500 Ohms	100E-12 F	10 8408	3 FAILED
						600 INPUT TO GND.

RAC ESD Database

Part Number	Part	Part ESD		Description	Technology	Test										Failure Test		General Remarks		
		Mfr	Class			Source	Date	Type	Resistance	Capacitance	Pulses	Date	Code	Devices	Test Result	Voltage	Pin Combination		Criteria	Remarks
74F539		FSC	1	Digital, Multiplexer	Advanced STTL	426	1C86	SS	1500 Ohms	100E-12 F	10	8637	20	8637	3 FAILED	600	INPUT TO GND.	61	204	13
74F533		FSC	1	Digital, Latch	Advanced STTL	426	0786	SS	1500 Ohms	100E-12 F	20	8616	20	8616	3 FAILED	1000	INPUT TO GND.	61	204	13
74F534		FSC	1	Digital, Flip-Flop	Advanced STTL	426	1086	SS	1500 Ohms	100E-12 F	20	8632	20	8632	3 FAILED	1000	INPUT TO GND.	61	204	13
74F543		FSC	1	Digital, Transceiver	Advanced STTL	426	0686	SS	1500 Ohms	100E-12 F	30	8610	30	8610	3 FAILED	2000	INPUT TO GND.	61	204	13
74F547		FSC	1	Digital, Decoder	Advanced STTL	426	0986	SS	1500 Ohms	100E-12 F	10	8502	10	8502	3 FAILED	600	INPUT TO GND.	61	204	13
74F548		FSC	1	Digital, Decoder	Advanced STTL	426	0986	SS	1500 Ohms	100E-12 F	20	8630	20	8630	3 FAILED	1000	INPUT TO GND.	61	204	13
74F569		FSC	1	Digital, Counter/Divider	Advanced STTL	426	0986	SS	1500 Ohms	100E-12 F	20	N/R	20	N/R	3 FAILED	1000	INPUT TO GND.	61	204	13
74F64		FSC	1	Digital, Gate	Advanced STTL	426	0886	SS	1500 Ohms	100E-12 F	20	8629	20	8629	3 FAILED	1000	INPUT MTO GND.	61	204	13

RAC ESD Database

Part Number	Part ESD		Part Description	Test				Technology	
	Mfr Class	Class		Test Date	Test Type	Resistance	Capacitance	Number	Devices
74F74	FSC	1	Digital, Flip-Flop	0986	SS	1500 Ohms	100E-12 F	10	8635
				426	0986	SS	1500 Ohms	100E-12 F	3 FAILED
								600 INPUT TO GND.	
									61
									204
									13
74F86	FSC	1	Digital, Gate						
				426	0886	SS	1500 Ohms	100E-12 F	20 8625
									3 FAILED
								1000 INPUT TO GND.	
									61
									204
									13
74H00	TEX	2	Digital, Gate						
				029	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
									1 FAILED
								3205 N/R	
									102
									188
									13
74H05	TEX	N	Digital, Inverter, Buffer						
				029	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
									1 FAILED
								21697 N/R	
									102
									188
									13
74H106	N/R	1	Digital, Flip-Flop						
				234	N/R	SS	0 Ohms	N/R	1 N/R
									1 FAILED
									300 IN.(9)(+) GND(13)(-)
									108
									222
									13
									108
									211
									13
									108
									210
									13
				235	N/R	SS	0 Ohms	120E-12 F	1 N/R
									3 FAILED
									200 IN.(9)(+) GND(8)(-)
									108
									220
									13
									108
									218
									13
									108
									221
									13
				236	N/R	SS	0 Ohms	510E-12 F	1 N/R
									1 FAILED
									100 IN.(8)(+) GND(13)(-)
									108
									223
									13
									108
									209
									13
									108
									206
									13
									108
									208
									13
				237	N/R	SS	0 Ohms	.01E-07 F	1 N/R
									200 IN.(8)(+) GND(13)(-)
									108
									219
									13

RAC ESD Database

Part Number 74H106	Part ESD		Part Description 1 Digital, Flip-Flop	Technology										
	Mfr	Class		Failure	Test									
	N/R	1		Criteria	Remarks									
74HC00	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Number Pulses	Date Code	Devices	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
	237	N/R	SS	0 Ohms	.01E-07 F	1	N/R	1	1 FAILED	200 IN.(8,9)(+)	GND(13)(-)	108	209	13
									1 FAILED	100 IN.(9)(+)	GND(13)(-)	108	207	13
									1 FAILED	100 IN.(8,9)(+)	GND(13)(-)	108	209	13
74HC00	238	N/R	SS	0 Ohms	.01E-06 F	1	N/R	2	2 FAILED	100 IN(1,8,9)(+)	GND(-)	108	252	13
									2 FAILED	100 IN(8,9)(+)	GND(13)(-)	108	252	13
	MOT	1	Digital, Gate									HMOS		
	399	0883	GN	1500 Ohms	100E-12 F	5	N/R	10	10 PASSED	2000 N/R		102	252	13
74HC00									2 FAILED	1100 N/R		102	252	13
	NSC	2	Digital, Gate									HMOS		
	399	0883	GN	1500 Ohms	100E-12 F	5	N/R	10	10 PASSED	2000 N/R		102	252	13
									10 PASSED	2000 N/R		102	252	13
74HC00	RCA	3	Digital, Gate									HMOS		
	399	0684	GN	1500 Ohms	100E-12 F	5	N/R	15	15 PASSED	2000 N/R		102	252	13
									6 FAILED	4120 PINS 4-7 & 1-3		102	252	13
	TEX	3	Digital, Gate									HMOS		
74HC00	399	0684	GN	1500 Ohms	100E-12 F	5	N/R	15	15 PASSED	2000 N/R		102	252	13
									1 FAILED	4120 PINS 7-8		102	252	13
	SIG	2	Digital, Gate									HMOS		
	399	0185	GN	1500 Ohms	100E-12 F	5	N/R	15	15 PASSED	2000 N/R		102	252	13

RAC ESD Database

Part	Part ESD	Part	Description		Technology							
Number	Mfr	Class	Test	Test	Test	HMOS						
74HC04	SIG	1	Digital, Inverter, Buffer									
Test	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Number Devices	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
391	0886	SS	1500 Ohms	100E-12 F		1	N/R	1 FAILED	2150 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	2150 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	2150 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	2175 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	2225 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	2225 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	2250 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	2275 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	2275 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	2300 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	2350 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	2425 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	2425 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	2450 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	2475 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	2550 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	2575 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	2600 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	2675 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	2675 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	2775 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	2775 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	2775 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	2850 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	3950 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	3050 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	3600 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	3850 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	3925 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	4150 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	1975 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	2100 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	2300 INPUT(13)(+) GND(7)(-)	44	252	19
								1 FAILED	2325 INPUT(13)(+) GND(7)(-)	44	252	19

RAC ESD Database

Part Number (Cont'd)	Part ESD		Part		Technology							
	Mfr Class	Description										
74HC04	SIG	1	Digital, Inverter, Buffer				HMOS					
Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Test Number	Test Result	Test Voltage	Test Pin Combination	Test Failure Criteria	Test Remarks	Test General Remarks
391	0886	SS	1500 Ohms	100E-12 F	1	N/R	1 FAILED	2350	INPUT(13)(+) GND(7)(-)	44	252	19
							1 FAILED	2425	INPUT(13)(+) GND(7)(-)	44	252	19
							1 FAILED	2475	INPUT(13)(+) GND(7)(-)	44	252	19
							1 FAILED	2500	INPUT(13)(+) GND(7)(-)	44	252	19
							1 FAILED	2525	INPUT(13)(+) GND(7)(-)	44	252	19
							1 FAILED	2575	INPUT(13)(+) GND(7)(-)	44	252	19
							1 FAILED	2575	INPUT(13)(+) GND(7)(-)	44	252	19
							1 FAILED	2675	INPUT(13)(+) GND(7)(-)	44	252	19
							1 FAILED	2675	INPUT(13)(+) GND(7)(-)	44	252	19
							1 FAILED	2675	INPUT(13)(+) GND(7)(-)	44	252	19
							1 FAILED	2700	INPUT(13)(+) GND(7)(-)	44	252	19
							1 FAILED	2775	INPUT(13)(+) GND(7)(-)	44	252	19
							1 FAILED	2850	INPUT(13)(+) GND(7)(-)	44	252	19
							1 FAILED	2900	INPUT(13)(+) GND(7)(-)	44	252	19
							1 FAILED	2925	INPUT(13)(+) GND(7)(-)	44	252	19
							1 FAILED	2925	INPUT(13)(+) GND(7)(-)	44	252	19
							1 FAILED	2950	INPUT(13)(+) GND(7)(-)	44	252	19
							1 FAILED	2975	INPUT(13)(+) GND(7)(-)	44	252	19
							1 FAILED	2975	INPUT(13)(+) GND(7)(-)	44	252	19
							1 FAILED	3050	INPUT(13)(+) GND(7)(-)	44	252	19
							1 FAILED	3225	INPUT(13)(+) GND(7)(-)	44	252	19
							1 FAILED	3225	INPUT(13)(+) GND(7)(-)	44	252	19
							1 FAILED	3225	INPUT(13)(+) GND(7)(-)	44	252	19
							1 FAILED	3400	INPUT(13)(+) GND(7)(-)	44	252	19
							1 FAILED	3450	INPUT(13)(+) GND(7)(-)	44	252	19
							1 FAILED	3750	INPUT(13)(+) GND(7)(-)	44	252	19
							1 FAILED	3800	INPUT(13)(+) GND(7)(-)	44	252	19
74HC161	MOT	1	Digital, Counter/Divider				HMOS					
399	0883	GN	1500 Ohms	100E-12 F	5	N/R	10 PASSED	2000	N/R	102	252	13
399	0886	GN	1500 Ohms	100E-12 F	5	N/R	1 FAILED	1100	N/R	102	252	13

RAC ESD Database

Part Number	Part Description	Part ESD Mfr. Class	Part	Technology			
(Cont'd)				HMOS			
74HC161	2 Digital, Counter/Divider	NSC					

RAC ESD Database

[illegible]

RAC ESD Database

Part Number	Part ESD		Part		Technology									
	Mfr	Class	Description		LSTTL									
	N/R		1	Digital, Gate										
Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Number Pulses	Number Date	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks		
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 N/R	1 FAILED	1500 N/R		103	252	13	
74LS03	384	N/R	SS	1000 Ohms	200E-12 F	1 N/R	1 N/R	1 FAILED	1000 EACH PIN(+)	52	110	24		
	LSTTL													
74LS04	426	0686	SS	1500 Ohms	100E-12 F	20 8620	3	FAILED	1000 INPUT TO GND.	61	204	13		
	LSTTL													
74LS05	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 N/R	1 FAILED	1500 N/R	103	252	13		
	LSTTL													
74LS08	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 N/R	1 FAILED	1500 N/R	103	252	13		
	LSTTL													
74LS09	127	N/R	SS	1000 Ohms	200E-12 F	1 N/R	1 N/R	1 FAILED	800 INPUTS(+) GROUND(-)	3	252	13		
							1	FAILED	1200 INPUTS(+) GROUND(-)	3	252	13		
74LS09	127	N/R	SS	1000 Ohms	200E-12 F	10 N/R	10 N/R	1 FAILED	800 INPUTS(+) GROUND(-)	3	252	13		
							1	FAILED	1000 INPUTS(+) GROUND(-)	3	252	13		
74LS09	127	N/R	SS	1000 Ohms	200E-12 F	1 N/R	1 N/R	1 FAILED	800 INPUTS(+) GROUND(-)	3	252	13		
							1	FAILED	1500 INPUTS(+) GROUND(-)	3	252	13		

RAC ESD Database

Part Number	Part ESD		Part Description	Technology									
	Mr. Class	Part		Failure Criteria	Test Remarks	General Remarks							
74LS09	TEA	1	Digital, Gate	LSTTL									
74LS09	SIG	2	Digital, Gate	LSTTL									
	127	N/R	SS	1000 Ohms	200E-12 F	10	N/R	1 FAILED	400	INPUTS(+) GROUND(-)	3	252	13
								1 FAILED	800	INPUTS(+) GROUND(-)	3	252	13
74LS09	N/R	1	Digital, Gate	LSTTL									
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1 FAILED	1500	N/R	103	252	13
74LS10	N/R	1	Digital, Gate	LSTTL									
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1 FAILED	1500	N/R	103	252	13
74LS10	FSC	1	Digital, Gate	LSTTL									
	426	0786	SS	1500 Ohms	100E-12 F	20	N/R	3 FAILED	1000	INPUT TO GND.	61	204	13
74LS107	N/R	1	Digital, Flip-Flop	LSTTL									
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1 FAILED	1500	N/R	103	252	13
74LS109	N/R	1	Digital, Flip-Flop	LSTTL									
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1 FAILED	1500	N/R	103	252	13

RAC ESD Database

Part Number	Part ESD		Part		Technology	
	Mfr	Class	Description			
74LS11	N/R	1	Digital, Gate		LSTTL	
	Test Date	Test Type	Test Resistance	Test Capacitance	Test Voltage	Test Result
	030	N/R	N/R	1500 Ohms	100E-12 F	1 FAILED
					1500 N/R	13
74LS11	FSC	1	Digital, Gate		LSTTL	
	426	0786 SS	1500 Ohms	100E-12 F	20 N/R	3 FAILED
					1000 INPUT TO GND.	13
74LS112	N/R	1	Digital, Flip-Flop		LSTTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 FAILED
					1500 N/R	13
	384	N/R	SS	1000 Ohms	200E-12 F	1 FAILED
					800 EACH PIN(+)	24
74LS112	FSC	1	Digital, Flip-Flop		LSTTL	
	426	0686 SS	1500 Ohms	100E-12 F	20 N/R	3 FAILED
					1000 INPUT TO GND.	13
74LS12	N/R	1	Digital, Gate		LSTTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 FAILED
					1500 N/R	13
74LS123	N/R	1	Digital, Multivibrator		LSTTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 FAILED
					1500 N/R	13
74LS125	N/R	1	Digital, Inverter, Buffer		LSTTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 FAILED
					1500 N/R	13

RAC ESD Database

Part Number	Part ESD		Part Description	Test										Technology				
	Mfr	Class		Source	Date	Type	Resistance	Capacitance	Test	Number	Date	Devices	Pulses	Code	Test	Failure Criteria	Test Remarks	General Remarks
74LS126	N/R	1	Digital, Inverter, Buffer	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	1500 N/R	103	252	13
74LS132	FSC	1	Digital, Multivibrator	426	0986	SS	1500 Ohms	100E-12 F	20	8631	3	FAILED	1000	INPUT TO GND.	61	204	13	
74LS138	N/R	1	Digital, Decoder	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13	
74LS138	FSC	1	Digital, Decoder	426	0686	SS	1500 Ohms	100E-12 F	20	N/R	3	FAILED	1000	INPUT TO GND.	61	204	13	
74LS139	N/R	1	Digital, Decoder	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13	
74LS139	FSC	1	Digital, Decoder	426	0786	SS	1500 Ohms	100E-12 F	20	N/R	3	FAILED	1000	INPUT TO GND.	61	204	13	
74LS14	N/R	1	Digital, Inverter, Schmitt Trigger	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13	
74LS148	N/R	1	Digital, Encoder	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13	

RAC ESD Database

Part Number	Part ESD		Part		Technology											
	Mfr	Class	Description													
74LS15	N/R	1	Digital, Gate													
	Test Source	Test Date	Test Type	Resistance	Capacitance	Test Pulses	Number	Date	Code	Devices	Test Result	Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	1500 N/R		103	252	13
74LS151	N/R	1	Digital, Multiplexer											LSTTL		
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	1500 N/R		103	252	13
74LS151	FSC	1	Digital, Multiplexer											LSTTL		
	426	0886 SS	1500 Ohms	100E-12 F		20	N/R	3	N/R	3	FAILED	1000 INPUT TO GND.		61	204	13
74LS153	N/R	1	Digital, Multiplexer											LSTTL		
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	1500 N/R		103	252	13
74LS154	N/R	1	Digital, Decoder											LSTTL		
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	1500 N/R		103	252	13
74LS155	N/R	1	Digital, Decoder											LSTTL		
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	1500 N/R		103	252	13
74LS157	N/R	1	Digital, Multiplexer											LSTTL		
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	1500 N/R		103	252	13
74LS157	FSC	1	Digital, Multiplexer											LSTTL		
	426	0786 SS	1500 Ohms	100E-12 F		20	N/R	3	N/R	3	FAILED	1000 INPUT TO GND.		61	204	13

RAC ESD Database

Part Number	Part ESD		Part		Technology										
	Mfr	Class	Description												
74LS158	FSC	1	Digital, Multiplexer												
	Test	Test	Test	Test	Number	Test	Test								
	Source	Date	Type	Resistance	Capacitance	Pulses	Code	Devices	Voltage	Pin	Combination	Failure	Test	General	
	426	1086	SS	1500 Ohms	100E-12 F	20	8636	3	FAILED	1000	INPUT TO GND.	61	204	13	
74LS160	N/R	1	Digital, Counter/Divider												
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13	
74LS160	FSC	1	Digital, Counter/Divider												
	426	0686	SS	1500 Ohms	100E-12 F	20	N/R	3	FAILED	1000	INPUT TO GND.	61	204	13	
74LS161	N/R	1	Digital, Counter/Divider												
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13	
74LS161	FSC	1	Digital, Counter/Divider												
	426	1086	SS	1500 Ohms	100E-12 F	20	N/R	3	FAILED	1000	INPUT TO GND.	61	204	13	
74LS162	N/R	1	Digital, Counter/Divider												
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13	
74LS163	N/R	1	Digital, Counter/Divider												
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13	
	239	N/R	SS	0 Ohms	N/R	1	N/R	1	FAILED	400	IN.(2)(+) GND(8)(-)	108	252	13	

RAC ESD Database

Part Number	Part (Cont'd)	Part ESD Mfr	Class	Part Description	Technology										
74LS163		N/R	1	Digital, Counter/Divider	LSTTL										
		Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Number Date	Devices Code	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
		239	N/R	SS	0	Ohms	N/R	1	N/R	1	FAILED	400 IN.(6,10)(+) GND(8)(-)	108	252	13
										1	FAILED	400 IN.(2,6,10)(+) GND(-)	108	252	13
		240	N/R	SS	0	Ohms	120E-12 F	1	N/R	1	FAILED	300 IN.(2,6)(+) GND(8)(-)	108	252	13
										1	FAILED	100 IN.(10)(+) GND(8)(-)	108	227	13
										3	FAILED	200 IN.(10)(+) GND(8)(-)	108	227	13
		241	N/R	SS	0	Ohms	510E-12 F	1	N/R	2	FAILED	200 IN.(2,6,10)(+) GND(-)	108	252	13
										3	FAILED	100 IN.(10)(+) GND(8)(-)	108	226	13
		242	N/R	SS	0	Ohms	.01E-07 F	1	N/R	1	FAILED	100 IN.(10)(+) GND(8)(-)	108	226	13
										2	FAILED	100 IN.(2,10)(+) GND(8)(-)	108	252	13
										1	FAILED	100 IN.(6,10)(+) GND(8)(-)	108	252	13
										1	FAILED	100 IN.(10)(+) GND(8)(-)	108	252	13
		243	N/R	SS	0	Ohms	.01E-06 F	1	N/R	1	PASSED	400 IN.(2,6,10)(+) GND(-)	108	252	13
										1	FAILED	75 IN.(6,10)(+) GND(8)(-)	108	252	13
										2	FAILED	100 IN.(2,6,10)(+) GND(-)	108	252	13
74LS164		N/R	1	Digital, Register, Shift									LSTTL		
		030	N/R	N/R	1500 Ohms	100E-12 F		1	N/R	1	FAILED	1500 N/R	103	252	13
74LS164		ESC	1	Digital, Register, Shift									LSTTL		
		426	0686	SS	1500 Ohms	100E-12 F		20	N/R	3	FAILED	1000 INPUT TO GND.	61	204	13
74LS165		N/R	1	Digital, Register, Shift									LSTTL		
		030	N/R	N/R	1500 Ohms	100E-12 F		1	N/R	1	FAILED	1500 N/R	103	252	13

RAC ESD Database

Part Number	Part	Part ESD		Part Description	Technology																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
		Mfr Class	Min		Failure Criteria	Test Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
74LS169		N/R	1	Digital, Register, Shift	103	LSTTL																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
		Test	Test	Test	Test	General																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
		Source	Date	Type	Resistance	Capacitance	Number	Date	Code	Pulses	Pin	Combination	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	

RAC ESD Database

Part Number (Cont'd)	Part ESD		Part		Technology										
	Mfr	Class	Description		LSTTL										
74LS175	SIG	1	Digital, Flip-Flop												
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Pulses	Number	Date	Devices	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
	127	N/R	SS	1000 Ohms	200E-12 F	1	N/R	1	N/R	1	FAILED	1400 INPUTS(+) GROUND(-)	3	252	13
	127	N/R	SS	1000 Ohms	200E-12 F	10	N/R	1	N/R	1	FAILED	1000 INPUTS(+) GROUND(-)	3	252	13
	127	N/R	SS	1000 Ohms	200E-12 F	1	N/R	1	N/R	1	FAILED	1400 INPUTS(+) GROUND(-)	3	252	13
	127	N/R	SS	1000 Ohms	200E-12 F	10	N/R	1	N/R	1	FAILED	600 INPUTS(+) GROUND(-)	3	252	13
	127	N/R	SS	1000 Ohms	200E-12 F	1	N/R	1	N/R	1	FAILED	1000 INPUTS(+) GROUND(-)	3	252	13
	426	0786	SS	1500 Ohms	100E-12 F	20	N/R	3	N/R	3	FAILED	1000 INPUT TO GND.	61	204	13
74LS175	N/R	1	Digital, Flip-Flop		LSTTL										
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	1500 N/R	103	252	13
74LS175	MOT	1	Digital, Flip-Flop		LSTTL										
	127	N/R	SS	1000 Ohms	200E-12 F	1	N/R	2	N/R	2	FAILED	800 INPUTS(+) GROUND(-)	3	252	13
	127	N/R	SS	1000 Ohms	200E-12 F	10	N/R	2	N/R	2	FAILED	1000 INPUTS(+) GROUND(-)	3	252	13
74LS181	N/R	1	Digital, Arithmetic, Logic Unit		LSTTL										
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	1500 N/R	103	252	13
74LS191	FSC	1	Digital, Counter/Divider		LSTTL										
	426	1086	SS	1500 Ohms	100E-12 F	10	8634	3	N/R	3	FAILED	600 INPUT TO GND.	61	204	13

RAC ESD Database

Part Number	Part ESD		Part Description	Technology	
	Mfr	Class		LS TTL	LS TTL
74LS192	N/R	1	Digital, Counter/Divider		
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance
	030	N/R	N/R	1500 Ohms	100E-12 F
74LS192	FSC	1	Digital, Counter/Divider		
	+26	0986	SS	1500 Ohms	100E-12 F
74LS193	N/R	1	Digital, Counter/Divider		
	030	N/R	N/R	1500 Ohms	100E-12 F
74LS193	FSC	1	Digital, Counter/Divider		
	426	1086	SS	1500 Ohms	100E-12 F
74LS194	N/R	1	Digital, Register, Shift		
	030	N/R	N/R	1500 Ohms	100E-12 F
74LS194	FSC	1	Digital, Register, Shift		
	426	0986	SS	1500 Ohms	100E-12 F
74LS195	FSC	1	Digital, Register, Shift		
	426	1086	SS	1500 Ohms	100E-12 F
74LS196	N/R	1	Digital, Counter/Divider		
	030	N/R	N/R	1500 Ohms	100E-12 F

RAC ESD Database

Part Number	Part ESD Part		Description							Technology			
	Mfr	Class	Mfr Class							Technology			
74LS197	N/R	N/R	1	Digital, Counter/Divider						LSTTL			
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Number Pulses	Number Code	Test Result	Test Voltage	Test Pin Combination	Failure Criteria	Test Remarks	General Remarks
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1 FAILED	1500	N/R	103	252	13
74LS20	N/R	N/R	1	Digital, Gate						LSTTL			
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1 FAILED	1500	N/R	103	252	13
74LS20	FSC	1	Digital, Gate						LSTTL				
	426	0686 SS	1500 Ohms	100E-12 F	20	N/R	3	FAILED	1000	INPUT TO GND.	61	204	13
74LS21	N/R	1	Digital, Gate						LSTTL				
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1 FAILED	1500	N/R	103	252	13
74LS221	N/R	1	Digital, Multivibrator						LSTTL				
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1 FAILED	1500	N/R	103	252	13
74LS240	SIG	1	Digital, Line/Bus Driver						LSTTL				
	127	N/R	SS	1000 Ohms	200E-12 F	1	N/R	1 FAILED	800	INPUTS(+) GROUND(-)	3	252	13
						1		FAILED	1500	INPUTS(+) GROUND(-)	3	252	13
	127	N/R	SS	1000 Ohms	200E-12 F	10	N/R	1 FAILED	800	INPUTS(+) GROUND(-)	3	252	13
						1		FAILED	1400	INPUTS(+) GROUND(-)	3	252	13
74LS240	TEX	1	Digital, Line/Bus Driver						LSTTL				
	127	N/R	SS	1000 Ohms	200E-12 F	1	N/R	1 FAILED	1000	INPUTS(+) GROUND(-)	3	252	13

RAC ESD Database

Part Number	(Cont'd)	Part ESD		Part Description											Technology			
		Mfr Class	TEF		Test Date	Test Type	Resistance	Capacitance	Pulses	Code	Number Devices	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks	
74LS240			1	Digital, Line/Bus Driver	127	N/R	SS	1000 Ohms	200E-12 F	1 N/R	10 N/R	1 FAILED	1500	INPUTS(+)	GROUND(-)	3	252	13
					127	N/R	SS	1000 Ohms	200E-12 F	10 N/R	1 FAILED	1000	INPUTS(+)	GROUND(-)	3	252	13	
					127	N/R	SS	1000 Ohms	200E-12 F	1 N/R	1 PASSED	1500	INPUTS(+)	GROUND(-)	3	252	13	
					127	N/R	SS	1000 Ohms	200E-12 F	10 N/R	2 FAILED	1200	INPUTS(+)	GROUND(-)	3	252	13	
74LS240					MOT	2	Digital, Line/Bus Driver								LSTTL			
74LS240					FSC	1	Digital, Line/Bus Driver									LSTTL		
	426	0786	SS	1500 Ohms	100E-12 F	10 N/R	3 FAILED	600	INPUT TO GND.			61	204	13				
74LS240					N/R	1	Digital, Line/Bus Driver									LSTTL		
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED	1500	N/R			103	252	13				
74LS241					FSC	1	Digital, Line/Bus Driver									LSTTL		
	426	1086	SS	1500 Ohms	100E-12 F	10 8632	3 FAILED	600	INPUT TO GND.			61	204	13				
74LS244					N/R	1	Digital, Line/Bus Driver									LSTTL		
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED	1500	N/R			103	252	13				
74LS244					MOT	1	Digital, Line/Bus Driver									LSTTL		
	027	N/R	CN	1500 Ohms	100E-12 F	1 N/R	15 PASSED	1000	N/R			47	252	12				

RAC ESD Database

Part Number	Part ESD		Part Description	Technology
	Mfr	Class		
	N/R	1	Digital, Transceiver	LSTTL
74LS245	Test		Test	Failure Test
	Date	Type		
	Source	Resistance	Capacitance	General
74LS251	Test		Test	Failure Test
	Date	Type		
	Source	Resistance	Capacitance	General
74LS253	Test		Test	Failure Test
	Date	Type		
	Source	Resistance	Capacitance	General
74LS257	Test		Test	Failure Test
	Date	Type		
	Source	Resistance	Capacitance	General
74LS251	Test		Test	Failure Test
	Date	Type		
	Source	Resistance	Capacitance	General
74LS253	Test		Test	Failure Test
	Date	Type		
	Source	Resistance	Capacitance	General
74LS257	Test		Test	Failure Test
	Date	Type		
	Source	Resistance	Capacitance	General

RAC ESD Database

Part Number	Part ESD		Part Description	Test				Number				Test				Technology		
	Mfr	Class		Source	Date	Type	Resistance	Capacitance	Pulse	Code	Devices	Result	Voltage	Pin	Combination	Failure Criteria	Test Remarks	General Remarks
74LS250	N/R	1	Digital, Latch	N/R	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13	LSTTL
74LS266	N/R	1	Digital, Gate	N/R	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13	LSTTL
74LS27	N/R	1	Digital, Gate	N/R	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13	LSTTL
74LS279	N/R	1	Digital, Latch	N/R	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13	LSTTL
74LS280	N/R	1	Digital, Error Detect/Correct, Parity/Carry Gen	N/R	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13	LSTTL
74LS283	N/R	1	Digital, Arithmetic, Adder, Full	N/R	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13	LSTTL
74LS295	N/R	1	Digital, Register, Shift	N/R	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13	LSTTL
74LS298	N/R	1	Digital, Latch	N/R	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500	N/R	103	252	13	LSTTL

RAC ESD Database

Part Number	Part ESD		Part Description	Technology			
	Mfr	Class		Failure Criteria	Test Remarks	General Remarks	
74LS298	FSC	1	Digital, Latch				
	Source 426	Test Date 0786	Test Type SS	Resistance 1500 Ohms	Capacitance 100E-12 F	Numlar Date 30 N/R	Test Result 3 FAILED
							2000 INPUT TO GND.
							61 204 13
74LS299	N/R	1	Digital, Register, Shift				
	Source 384	Test Date N/R	Test Type SS	Resistance 1000 Ohms	Capacitance 200E-12 F	Numlar Date 1 N/R	Test Result 1 FAILED
							600 EACH PIN(+)
							52 141 24
74LS299	FSC	1	Digital, Register, Shift				
	Source 426	Test Date 0786	Test Type SS	Resistance 1500 Ohms	Capacitance 100E-12 F	Numlar Date 20 N/R	Test Result 3 FAILED
							1000 INPUT TO GND.
							61 204 13
74LS30	N/R	1	Digital, Gate				
	Source 030	Test Date N/R	Test Type N/R	Resistance 1500 Ohms	Capacitance 100E-12 F	Numlar Date 1 N/R	Test Result 1 FAILED
							1500 N/R
							103 252 13
74LS32	N/R	1	Digital, Gate				
	Source 030	Test Date N/R	Test Type N/R	Resistance 1500 Ohms	Capacitance 100E-12 F	Numlar Date 1 N/R	Test Result 1 FAILED
							1500 N/R
							103 252 13
74LS32	FSC	1	Digital, Gate				
	Source 426	Test Date 0786	Test Type SS	Resistance 1500 Ohms	Capacitance 100E-12 F	Numlar Date 20 N/R	Test Result 3 FAILED
							1000 INPUT TO GND.
							61 204 13
74LS33	FSC	1	Digital, Register, Shift				
	Source 426	Test Date 1086	Test Type SS	Resistance 1500 Ohms	Capacitance 100E-12 F	Numlar Date 20 8633	Test Result 3 FAILED
							1000 INPUT TO GND.
							61 204 13
74LS352	FSC	1	Digital, Multiplexer				
	Source 426	Test Date 0986	Test Type SS	Resistance 1500 Ohms	Capacitance 100E-12 F	Numlar Date 20 8514	Test Result 3 FAILED
							1000 INPUT TO GND.
							61 204 13

RAC ESD Database

Part Number	Part ESD		Part Description	Test				Number		Date		Pulses		Test		Voltage		Pin Combination		Failure Criteria		Test Remarks		General Remarks	
	Mfr	Class		Test	Type	Resistance	Capacitance	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test
74LS353	N/R	1	Digital, Multiplexer	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500 N/R	103	252	13									
74LS353	FSC	1	Digital, Multiplexer	426	1086 SS	1500 Ohms	100E-12 F	20	N/R	3	FAILED	1000 INPUT TO GND.	61	204	13										
74LS365	FSC	1	Digital, Inverter, Buffer	426	0886 SS	1500 Ohms	100E-12 F	10	8623	3	FAILED	600 INPUT TO GND.	61	204	13										
74LS366	FSC	1	Digital, Inverter, Buffer	426	0886 SS	1500 Ohms	100E-12 F	10	8614	3	FAILED	600 INPUT TO GND.	61	204	13										
74LS367	N/R	1	Digital, Line/Bus Driver	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500 N/R	103	252	13									
74LS368	N/R	1	Digital, Inverter, Buffer	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500 N/R	103	252	13									
74LS37	N/R	1	Digital, Inverter, Buffer	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500 N/R	103	252	13									
74LS373	N/R	1	Digital, Latch	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1500 N/R	103	252	13									

RAC ESD Database

Part Number	Part ESD		Part		Technology	
	(Cont'd)	Mfr	Class	Description		
74LS373		FSC	1	Digital, Latch	LSTTL	
		Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses
		426	0886 SS	1500 Ohms	100E-12 F	20 N/R
						3 FAILED
						1000 INPUT TO GND.
						61
						204
						13
74LS374		N/R	1	Digital, Flip-Flop	LSTTL	
		030	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1500 N/R
						103
						252
						13
74LS374		FSC	1	Digital, Flip-Flop	LSTTL	
		426	0986 SS	1500 Ohms	100E-12 F	10 N/R
						3 FAILED
						600 INPUT TO GND.
						61
						204
						13
74LS379		FSC	1	Digital, Flip-Flop	LSTTL	
		426	1086 SS	1500 Ohms	100E-12 F	20 8613
						3 FAILED
						1000 INPUT TO GND.
						61
						204
						13
74LS38		N/R	1	Digital, Inverter, Buffer	LSTTL	
		030	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1500 N/R
						103
						252
						13
74LS390		N/R	1	Digital, Counter/Divider	LSTTL	
		030	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1500 N/R
						103
						252
						13
74LS393		N/R	1	Digital, Counter/Divider	LSTTL	
		030	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1500 N/R
						103
						252
						13
74LS395		FSC	1	Digital, Register, Shift	LSTTL	
		426	0886 SS	1500 Ohms	100E-12 F	10 8449
						3 FAILED
						600 INPUT TO GND.
						61
						204
						13

RAC ESD Database

Part Number	Part ESD		Part Description	Technology
	Mfr	Class		
74LS40	N/R	1	Digital, Inverter, Buffer	LSTTL
Test Test Test Test				Failure Test General
Source Date Type Resistance Capacitance Pulses Code Devices Result Voltage Pin Combination				Criteria Remarks
030	N/R	N/R	1500 Ohms 100E-12 F 1 N/R	103 252 13
74LS40	FSC	1	Digital, Inverter, Buffer	LSTTL
426	0786 SS	1500 Ohms	100E-12 F 20 N/R	61 204 13
74LS42	N/R	1	Digital, Encoder	LSTTL
030	N/R	N/R	1500 Ohms 100E-12 F 1 N/R	103 252 13
74LS51	N/R	1	Digital, Gate	LSTTL
030	N/R	N/R	1500 Ohms 100E-12 F 1 N/R	103 252 13
74LS54	N/R	1	Digital, Gate	LSTTL
030	N/R	N/R	1500 Ohms 100E-12 F 1 N/R	103 252 13
74LS574	FSC	1	Digital, Flip-Flop	LSTTL
426	0886 SS	1500 Ohms	100E-12 F 20 8626	61 204 13
74LS670	N/R	1	Digital, Register, File	LSTTL
030	N/R	N/R	1500 Ohms 100E-12 F 1 N/R	103 252 13
74LS74	N/R	1	Digital, Flip-Flop	LSTTL
030	N/R	N/R	1500 Ohms 100E-12 F 1 N/R	103 252 13

RAC ESD Database

[illegible]

RAC ESD Database

Part Number	Part ESD		Part Description	Technology													
	Mfr	Class		STTL													
74S00	N/R	1	Digital, Gate														
	Test Source	Test Type	Test Resistance	Test Capacitance	Test Pulses	Num. Date	Test Devices	Test Result	Test Voltage	Test Pin Combination	Failure Criteria	Test Remarks	General Remarks				
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000 N/R	103	252	13				
	067	N/R	N/R	0 Ohms	N/R	1	N/R	1	FAILED	375 INPUT	102	252	9				
	068	N/R	N/R	0 Ohms	100E-12 F	1	N/R	1	FAILED	250 INPUT	102	252	9				
	069	N/R	N/R	0 Ohms	150E-12 F	1	N/R	1	FAILED	200 INPUT	102	252	9				
	070	N/R	N/R	0 Ohms	200E-12 F	1	N/R	1	FAILED	175 INPUT	102	252	9				
	384	N/R	SS	1000 Ohms	200E-12 F	1	N/R	1	FAILED	800 EACH PIN(+)	52	105	24				
								1	FAILED	650 EACH PIN(+)	52	141	24				
								1	FAILED	850 EACH PIN(+)	52	101	24				
								1	FAILED	650 EACH PIN(+)	52	138	24				
	028	N/R	SS	1500 Ohms	117E-12 F	30	N/R	5	FAILED	1000 N/R	86	252	13				
74S02	N/R	1	Digital, Gate								STTL						
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000 N/R	103	252	13				
74S02	FSC	1	Digital, Gate								STTL						
	426	0786	SS	1500 Ohms	100E-12 F	20	N/R	3	FAILED	1000 INPUT TO GND.	61	204	13				
74S03	N/R	1	Digital, Gate								STTL						
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000 N/R	103	252	13				
74S04	N/R	1	Digital, Inverter, Buffer								STTL						
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000 N/R	103	252	13				

RAC ESD Database

Part Number	Part ESD		Part		Technology									
	(Cont'd)		Mfr Class	Description	STTL									
74S04			FSC	1 Digital, Inverter, Buffer										
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Number Date	Code Devices	Test Result	Test Voltage	Pin Combination	Failure Test Criteria	Test Remarks	General Remarks
	426	0686	SS	1500 Ohms	100E-12 F	30 N/R	30 N/R	3	FAILED	2000	INPUT TO GND.	61	204	13
74S05	N/R	1	Digital, Inverter, Buffer	STTL										
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 N/R	1	FAILED	1000	N/R	103	252	13
74S08	N/R	1	Digital, Gate	STTL										
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 N/R	1	FAILED	1000	N/R	103	252	13
74S10	N/R	1	Digital, Gate	STTL										
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 N/R	1	FAILED	1000	N/R	103	252	13
74S10	FSC	1	Digital, Gate	STTL										
	426	0786	SS	1500 Ohms	100E-12 F	30 N/R	30 N/R	3	FAILED	2000	INPUT TO GND.	61	204	13
74S109	FSC	1	Digital, Flip-Flop	STTL										
	426	1086	SS	1500 Ohms	100E-12 F	30 N/R	30 N/R	3	FAILED	2000	INPUT TO GND.	61	204	13
74S11	N/R	1	Digital, Gate	STTL										
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 N/R	1	FAILED	1000	N/R	103	252	13
74S11	FSC	1	Digital, Gate	STTL										
	426	0786	SS	1500 Ohms	100E-12 F	30 N/R	30 N/R	3	FAILED	2000	INPUT TO GND.	61	204	13

RAC ESD Database

Part Number	Part ESD		Part Description	Mfg Class	N/R	Test		Test Type	Resistance	Capacitance	Number		Pulses	Code	Devices	Test		Voltage	Pin Combination	Failure Test		General Remarks
	Source	Date				N/R	N/R				N/R	N/R				1	FAILED			103	252	
74S112	030	N/R	1	Digital, Flip-flop																		
74S112	FSC	0686	SS	1	Digital, Flip-flop																	
426	0686	SS	1500	Ohms	100E-12 F																	
74S133	N/R	N/R	N/R	1	Digital, Gate																	
030	N/R	N/R	1500	Ohms	100E-12 F																	
74S135	N/R	N/R	N/R	1	Digital, Gate																	
030	N/R	N/R	1500	Ohms	100E-12 F																	
74S138	FSC	0686	SS	1	Digital, Decoder																	
426	0686	SS	1500	Ohms	100E-12 F																	
74S139	FSC	1086	SS	1	Digital, Decoder																	
426	1086	SS	1500	Ohms	100E-12 F																	
74S140	N/R	N/R	N/R	1	Digital, Line/Bus Driver																	
030	N/R	N/R	1500	Ohms	100E-12 F																	
74S151	N/R	N/R	N/R	1	Digital, Multiplexer																	
030	N/R	N/R	1500	Ohms	100E-12 F																	

RAC ESD Database

Part Number	(Cont'd)	Part ESD		Part Description	Technology
		Mfr	Class		
74S151		FSC	1	Digital, Multiplexer	STTL
		Test Source	Test Type	Test Resistance	Test Capacitance
		426	0686 SS	1500 Ohms	100E-12 F
		Number Date		Pulses Code	Devices
				20	N/R
				3	FAILED
				1000	INPUT TO GND.
				Test Voltage	Pin Combination
				1000	INPUT TO GND.
				Test Result	General Remarks
				1	204
				103	252
				61	204
				13	13
74S153		N/R	1	Digital, Multiplexer	STTL
030		N/R	N/R	1500 Ohms	100E-12 F
				1	N/R
				1	FAILED
				1000	N/R
				Test Voltage	Pin Combination
				1000	INPUT TO GND.
				Test Result	General Remarks
				1	204
				103	252
				61	204
				13	13
74S157		FSC	1	Digital, Multiplexer	STTL
426		0886 SS	1500 Ohms	100E-12 F	
				30	N/R
				3	FAILED
				2000	INPUT TO GND.
				Test Voltage	Pin Combination
				1000	INPUT TO GND.
				Test Result	General Remarks
				1	204
				103	252
				61	204
				13	13
74S157		N/R	1	Digital, Multiplexer	STTL
030		N/R	N/R	1500 Ohms	100E-12 F
				1	N/R
				1	FAILED
				1000	N/R
				Test Voltage	Pin Combination
				1000	INPUT TO GND.
				Test Result	General Remarks
				1	204
				103	252
				61	204
				13	13
74S157		FSC	1	Digital, Multiplexer	STTL
426		0786 SS	1500 Ohms	100E-12 F	
				50	N/R
				3	FAILED
				2000	INPUT TO GND.
				Test Voltage	Pin Combination
				1000	INPUT TO GND.
				Test Result	General Remarks
				1	204
				103	252
				61	204
				13	13
74S158		FSC	1	Digital, Multiplexer	STTL
426		1086 SS	1500 Ohms	100E-12 F	
				20	N/R
				3	FAILED
				1000	INPUT TO GND.
				Test Voltage	Pin Combination
				1000	INPUT TO GND.
				Test Result	General Remarks
				1	204
				103	252
				61	204
				13	13
74S160		N/R	1	Digital, Counter/Divider	STTL
030		N/R	N/R	1500 Ohms	100E-12 F
				1	N/R
				1	FAILED
				1000	N/R
				Test Voltage	Pin Combination
				1000	INPUT TO GND.
				Test Result	General Remarks
				1	204
				103	252
				61	204
				13	13
74S161		N/R	1	Digital, Counter/Divider	STTL
030		N/R	N/R	1500 Ohms	100E-12 F
				1	N/R
				1	FAILED
				1000	N/R
				Test Voltage	Pin Combination
				1000	INPUT TO GND.
				Test Result	General Remarks
				1	204
				103	252
				61	204
				13	13

RAC ESD Database

Part Number	Part ESD		Part		Technology	
	Mfr	Class	Description			
74S174	N/R	1	Digital, Flip-Flop		STTL	
	Test Date	Test Type	Test Resistance	Test Capacitance	Test Voltage	Test Pin Combination
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1000 N/R
						13
74S175	N/R	1	Digital, Flip-Flop		STTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1000 N/R
						13
74S175	FSC	1	Digital, Flip-Flop		STTL	
	426	0786 SS	1500 Ohms	100E-12 F	20 N/R	3 FAILED
						1000 INPUT TO GND.
						61
						204
						13
74S181	N/R	1	Digital, Arithmetic, Logic Unit		STTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1000 N/R
						13
74S182	N/R	1	Digital, Arithmetic, Carry Generator		STTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1000 N/R
						13
74S189	N/R	1	Digital, Memory, RAM, Static		STTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1000 N/R
						13
74S20	N/R	1	Digital, Gate		STTL	
	030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						1000 N/R
						13
74S20	FSC	1	Digital, Gate		STTL	
	426	0686 SS	1500 Ohms	100E-12 F	30 N/R	3 FAILED
						2000 INPUT TO GND.
						61
						204
						13

RAC ESD Database

Part Number	Part ESD Part		Technology															
	Mfr	Class	Description	Technology	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test
74S200	N/R	1	Digital, Memory, RAM	STTL														
	Source	Date	Test	Resistance	Capacitance	Number	Date	Number	Date	Number	Date	Number	Date	Number	Date	Number	Date	Number
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	N/R	1	N/R	1	N/R	1	N/R	1
74S22	N/R	1	Digital, Gate	STTL														
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	N/R	1	N/R	1	N/R	1	N/R	1
74S251	N/R	1	Digital, Multiplexer	STTL														
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	N/R	1	N/R	1	N/R	1	N/R	1
74S257	N/R	1	Digital, Multiplexer	STTL														
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	N/R	1	N/R	1	N/R	1	N/R	1
74S257	FSC	1	Digital, Multiplexer	STTL														
	426	1086 SS	1500 Ohms	100E-12 F	20	N/R	3	FAILED	1000	INPUT TO GND.	61	204	13					
74S258	N/R	1	Digital, Multiplexer	STTL														
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	N/R	1	N/R	1	N/R	1	N/R	1
74S258	FSC	1	Digital, Multiplexer	STTL														
	426	1086 SS	1500 Ohms	100E-12 F	30	N/R	3	FAILED	2000	INPUT TO GND.	61	204	13					
74S30	N/R	1	Digital, Gate	STTL														
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	N/R	1	N/R	1	N/R	1	N/R	1

RAC ESD Database

Part Number	Part ESD Part		Description		Technology	
	Mfr	Class	Description		Failure Criteria	Test Remarks
7-S32	N/R	1	Digital, Gate		STTL	
	Test Date	Test Type	Test Resistance	Capacitance	Test Voltage	Test Result
	030	N/R	N/R	1500 Ohms	100E-12 F	1 FAILED
7-S32	FSC	1	Digital, Gate		STTL	
426	0786	SS	1500 Ohms	100E-12 F	30 N/R	3 FAILED
					2000 INPUT TO GND.	204 13
7-S40	FSC	1	Digital, Inverter, Buffer		STTL	
426	0786	SS	1500 Ohms	100E-12 F	20 N/R	3 FAILED
					1000 INPUT TO GND.	204 13
7-S42	N/R	1	Digital, Memory, PROM		STTL	
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED
					1000 N/R	252 13
7-S51	N/R	1	Digital, Gate		STTL	
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED
					1000 N/R	252 13
7-S74	N/R	1	Digital, Flip-Flop		STTL	
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED
					1000 N/R	252 13
7-S85	N/R	1	Digital, Arithmetic, Magnitude Comparator		STTL	
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED
					1000 N/R	252 13
7-S86	N/R	1	Digital, Gate		STTL	
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1 FAILED
					1000 N/R	252 13

RAC ESD Database

Part Number	Part ESD		Part Description	Technology			
	Mfr Class	Class		Failure Criteria	Test Remarks	General Remarks	
74S86	FSC	1	Digital, Gate	STTL			
Test Source				Test Date	Test Result	Test Voltage	Pin Combination
426				0886	SS	1500 Ohms	100E-12 F
						30 N/R	3 FAILED
						2000 INPUT TO GND.	
75107	TEX	3	Digital, Line/Bus Receiver	TTL			
029				N/R	N/R	1500 Ohms	100E-12 F
						1 N/R	1 FAILED
						4907 N/R	
7520	ANA	1	Digital, Converter, A/D-D/A	CMOS			
005				0980	SS	1500 Ohms	100E-12 F
						1 N/R	1 FAILED
						500 INPUT(4)(+) VSS(3)(-)	104
						500 INPUT(4)(+) VSS(3)(-)	104
						500 INPUT(4)(+) VDD(14)(-)	104
						800 INPUT(4)(+) VSS(3)(-)	104
						500 INPUT(4)(+) VSS(3)(-)	104
						500 INPUT(4)(+) VSS(3)(-)	104
						500 INPUT(4)(+) VSS(3)(-)	104
7520	ISL	1	Digital, Converter, A/D-D/A	CMOS			
005				0980	SS	1500 Ohms	100E-12 F
						1 N/R	1 FAILED
						800 RREF(15)(+) VSS(3)(-)	104
						500 INPUT(8)(+) VDD(14)(-)	104
						500 RFB(16)(+) VDD(14)(-)	104
						500 RFB(16)(+) VSS(3)(-)	104
						800 INPUT(4)(-) VSS(3)(-)	104
						500 RFB(16)(+) VSS(3)(-)	104
7520	MIT	1	Digital, Converter, A/D-D/A	CMOS			
005				0980	SS	1500 Ohms	100E-12 F
						1 N/R	1 FAILED
						800 INPUT(+) VSS(-)	104
						800 INPUT(4)(+) VSS(3)(-)	104
						500 INPUT(9)(+) VSS(3)(-)	104

RAC ESD Database

[illegible]

RAC ESD Database

Part Number	Part ESD		Part		Technology	
	Mfr	Class	Description			
7522	N/R	N/R	1 Digital, Converter, A/D-D/A		CMOS	
	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Test Voltage
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1000 N/R
					1 FAILED	103
					1 FAILED	103
						252
						13
7533	ANA	1	Digital, Converter, A/D-D/A		CMOS	
005	0980 SS	1500 Ohms	100E-12 F	1 N/R		104
					1 FAILED	104
					1 PASSED	104
					1 FAILED	104
					1 FAILED	104
					1 FAILED	104
					1 FAILED	104
						85
						13
75461	N/R	2	Digital, Line/Bus Driver		TTL	
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	103
					1 FAILED	252
						13
75462	N/R	2	Digital, Line/Bus Driver		TTL	
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	103
					1 FAILED	252
						13
75463	N/R	2	Digital, Line/Bus Driver		TTL	
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	103
					1 FAILED	252
						13
75464	N/R	2	Digital, Line/Bus Driver		TTL	
030	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	103
					1 FAILED	252
						13
7552	ISL	1	Digital, Memory, RAM, Static		MOS	
003	1175 SS	0	Ohms	100E-12 F	1 N/R	102
					1 FAILED	252
						13

RAC ESD Database

Part Number	Part ESD		Part Description	Technology	
	Mfr	Class		Failure Criteria	Test Remarks
75LS85	N/R	1	Digital, Arithmetic, Magnitude Comparator	103	252 13
76161	HAR	1	Digital, Memory, PROM	STTL	
392	1086 SS	1500 Ohms	100E-12 F	19	252 13
76161	N/R	2	Digital, Memory, PROM	STTL	
030	N/R	N/R	1500 Ohms	100E-12 F	103 252 13
7620	N/R	3	Digital, Memory, PROM	STTL	
245	N/R	SS	100 Ohms	N/R	47 186 21
76321	HAR	1	Digital, Memory, PROM	STTL	
392	0886 SS	1500 Ohms	100E-12 F	19	252 13
776	FSC	3	Linear, Operational Amplifier	Bipolar	
029	N/R	N/R	1500 Ohms	100E-12 F	102 188 13
776	N/R	2	Linear, Operational Amplifier	Bipolar	
030	N/R	N/R	1500 Ohms	100E-12 F	103 252 13
7805	N/R	3	Linear, Voltage Regulator	Bipolar	
030	N/R	N/R	1500 Ohms	100E-12 F	103 252 13

RAC ESD Database

Part Number	Part ESD		Part		Technology											
	Mfr	Class	Description		Bipolar											
7812	FSC	2	Linear, Voltage Regulator													
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Number Code	Date Code	Number Devices	Test Result	Test Voltage	Test Pin	Test Combination	Failure Criteria	Test Remarks	General Remarks
	390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1	N/R	1	PASSED	2000	S/R	105	247	11
7812	N/R	3	Linear, Voltage Regulator													
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	10000	N/R	103	252	13
														103	252	13
														103	252	13
7815	N/R	3	Linear, Voltage Regulator													
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	10000	N/R	103	252	13
78405	N/R	3	Linear, Voltage Regulator													
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	10000	N/R	103	252	13
78405	FSC	2	Linear, Voltage Regulator													
	390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1	N/R	1	PASSED	2000	S/R	105	247	11
78405	N/R	3	Linear, Voltage Regulator													
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	10000	N/R	103	252	13
78412	FSC	2	Linear, Voltage Regulator													
	390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1	N/R	1	PASSED	2000	S/R	105	247	11

RAC ESD Database

Part Number	Part ESD		Part Description	Technology	
	Mfr	Class		Failure Criteria	Test Remarks
78M12	N/R	3	Linear, Voltage Regulator	Bipolar	13
	Test Source	Test Date	Test Resistance	Test Capacitance	Test Voltage
	030	N/R	N/R	1500 Ohms	100E-12 F
				1 N/R	1 FAILED
				10000 N/R	13
78M15	N/R	3	Linear, Voltage Regulator	Bipolar	13
	Test Source	Test Date	Test Resistance	Test Capacitance	Test Voltage
	030	N/R	N/R	1500 Ohms	100E-12 F
				1 N/R	1 FAILED
				10000 N/R	13
7905	N/R	3	Linear, Voltage Regulator	Bipolar	13
	Test Source	Test Date	Test Resistance	Test Capacitance	Test Voltage
	030	N/R	N/R	1500 Ohms	100E-12 F
				1 N/R	1 FAILED
				10000 N/R	13
7912	N/R	3	Linear, Voltage Regulator	Bipolar	13
	Test Source	Test Date	Test Resistance	Test Capacitance	Test Voltage
	030	N/R	N/R	1500 Ohms	100E-12 F
				1 N/R	1 FAILED
				10000 N/R	13
7915	N/R	3	Linear, Voltage Regulator	Bipolar	13
	Test Source	Test Date	Test Resistance	Test Capacitance	Test Voltage
	030	N/R	N/R	1500 Ohms	100E-12 F
				1 N/R	1 FAILED
				10000 N/R	13
7924	N/R	3	Linear, Voltage Regulator	Bipolar	13
	Test Source	Test Date	Test Resistance	Test Capacitance	Test Voltage
	030	N/R	N/R	1500 Ohms	100E-12 F
				1 N/R	1 FAILED
				10000 N/R	13
79M12	FSC	2	Linear, Voltage Regulator	Bipolar	11
	Test Source	Test Date	Test Resistance	Test Capacitance	Test Voltage
	390	N/R	GN	1500 Ohms	100E-12 F
				5 N/R	1 PASSED
				2000 S/R	11

283

Part Number (Cont'd)	Part ESd		Part Description										Technology				
	Mfr N/R	Class	Test Date	Test Type	Resistance	Capacitance	Test	Number	Date	Code	Devices	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
79M12	N/R	3	Linear, Voltage Regulator														
	030	N/R	N/R	N/R	1500 Ohms	100E-12 F		1	N/R		1	FAILED	10000	N/R	103	252	13
79M15	FSC	2	Linear, Voltage Regulator														
	390	N/R	GN	1500 Ohms	100E-12 F			5	N/R		1	PASSED	2000	S/R	105	247	11
79M15	N/R	3	Linear, Voltage Regulator														
	030	N/R	N/R	1500 Ohms	100E-12 F			1	N/R		1	FAILED	10000	N/R	103	252	13
7M853S6S	IDT	3	Digital, Memory, RAM, Static														
	436	1186 SS	1500 Ohms	100E-12 F				18	N/R		2	PASSED	4000	INPUT TO GND	5	252	3
80186	INT	1	Digital, Processing Unit, Central														
	429	N/R	GN	0 Ohms	50E-12 F			3	N/R		10	PASSED	600	N/R	13	237	13
	428	N/R	GN	1500 Ohms	100E-12 F			5	N/R		10	PASSED	1200	N/R	13	252	13
											10	PASSED	1200	N/R	13	252	13
	429	N/R	GN	0 Ohms	50E-12 F			3	N/R		10	PASSED	600	N/R	13	237	13
80188	INT	1	Digital, Processing Unit, Central														
	428	N/R	GN	1500 Ohms	100E-12 F			5	N/R		10	PASSED	1200	N/R	13	252	13
											10	PASSED	1200	N/R	13	252	13
	429	N/R	GN	0 Ohms	50E-12 F			3	N/R		10	PASSED	600	N/R	13	237	13

RAC ESD Database

[illegible]

RAC ESD Database

Part Number	Part ESD	Part	Description		Technology																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
			Mfr Class		Failure Criteria	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test

RAC ESD Database

Part Number	Part	Part ESD		Part		Description				Technology			
		Mfr	Class	Mfr		Class		Description		Description		HMOS	
8085		INT	1	Digital, Processing Unit, Central									
		Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test
		Source	Date	Type	Resistance	Capacitance	Pulses	Date	Number	Code	Devices	Voltage	Pin Combination
		429	N/R	GN	0	Ohms	50E-12 F	3	N/R		10	FAILED	220 N/R
											10	PASSED	600 N/R
		VAR	3	Digital, Processing Unit, Central									
		424	1283	SS	1500	Ohms	100E-12 F	11	N/R		1	FAILED	1500 PINS 5,21, AND 32
		424	1283	SS	1500	Ohms	100E-12 F	14	N/R		1	FAILED	1750 PINS 5,21, AND 32
		424	1283	SS	1500	Ohms	100E-12 F	16	N/R		2	FAILED	2000 PINS 5,21, AND 32
		424	1283	SS	1500	Ohms	100E-12 F	15	N/R		2	FAILED	2000 PINS 5,21, AND 32
		424	1283	SS	1500	Ohms	100E-12 F	18	N/R		1	FAILED	2250 PINS 5,21, AND 32
		424	1283	SS	1500	Ohms	100E-12 F	17	N/R		4	FAILED	2250 PINS 5,21, AND 32
		424	1283	SS	1500	Ohms	100E-12 F	20	N/R		3	FAILED	2500 PINS 5,21, AND 32
		423	1283	SS	0	Ohms	0	F	22	N/R	1	FAILED	2750 PIN21
		423	1283	SS	0	Ohms	0	F	30	N/R	1	FAILED	4500 PIN 21
		423	1283	SS	0	Ohms	0	F	32	N/R	1	FAILED	5000 PIN 21
		INT	1	Digital, Processing Unit, Central									
		428	N/R	GN	1500	Ohms	100E-12 F	5	N/R		10	FAILED	1000 PIN 2
											10	FAILED	950 PIN 4
											10	FAILED	1050 PIN 11
											10	FAILED	1000 PIN 34

RAC ESD Database

Part Number	Part ESD		Part		Technology	
	Number	(Cont'd)	Mfr Class	Description	Failure Test	General Remarks
8086	INT	1	GN	Digital, Processing Unit, Central	13	252
	Test	Test	Test	Test	Test	Test
	Source	Date	Type	Resistance	Capacitance	Pulses
428	N/R	N/R	GN	1500 Ohms	100E-12 F	5 N/R
						10 PASSED
						10 PASSED
429	N/R	N/R	GN	0 Ohms	50E-12 F	3 N/R
						10 PASSED
429	N/R	N/R	GN	1500 Ohms	100E-12 F	5 N/R
						10 PASSED
8087	INT	1	GN	Digital, Processing Unit, Central	13	237
	Test	Test	Test	Test	Test	Test
	Source	Date	Type	Resistance	Capacitance	Pulses
428	N/R	N/R	GN	1500 Ohms	100E-12 F	5 N/R
						10 PASSED
						10 PASSED
429	N/R	N/R	GN	0 Ohms	50E-12 F	3 N/R
						10 PASSED
429	N/R	N/R	GN	1500 Ohms	100E-12 F	5 N/R
						10 PASSED
8088	INT	1	GN	Digital, Processing Unit, Central	13	252
	Test	Test	Test	Test	Test	Test
	Source	Date	Type	Resistance	Capacitance	Pulses
428	N/R	N/R	GN	1500 Ohms	100E-12 F	5 N/R
						10 PASSED
						10 PASSED
429	N/R	N/R	GN	0 Ohms	50E-12 F	3 N/R
						10 PASSED
429	N/R	N/R	GN	1500 Ohms	100E-12 F	5 N/R
						10 PASSED
8089	INT	1	GN	Digital, Processing Unit, Central	13	252
	Test	Test	Test	Test	Test	Test
	Source	Date	Type	Resistance	Capacitance	Pulses
428	N/R	N/R	GN	1500 Ohms	100E-12 F	5 N/R
						10 PASSED
						10 PASSED
429	N/R	N/R	GN	0 Ohms	50E-12 F	3 N/R
						10 PASSED
429	N/R	N/R	GN	1500 Ohms	100E-12 F	5 N/R
						10 PASSED
80c86	HAR	3	SS	Digital, Processing Unit, Central	5	252
	Test	Test	Test	Test	Test	Test
	Source	Date	Type	Resistance	Capacitance	Pulses
436	1186	SS	SS	1500 Ohms	100E-12 F	18 8706
						2 PASSED
						4000 INPUT TO GND
810	VAR	2	SS	Digital, Multifunction, RAM, I/O, Timer	CMOS	149
	Test	Test	Test	Test	Test	Test
	Source	Date	Type	Resistance	Capacitance	Pulses
424	0983	SS	SS	1500 Ohms	100E-12 F	6 N/R
						5 FAILED
						750 PIN, 9 AND 3

RAC ESD Database

Part Number	ESD Class	Part Description	Test										Technology					
			Mfr	Class	Source	Date	Type	Resistance	Capacitance	Pulses	Date	Number	Test Result	Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
810	2	Digital, Multifunction, RAM, I/O, Timer	VAP															
			424	0983	SS	1500	Ohms	100E-12	F	5	N/R	10	FAILED	750	PINS 9 AND 3	46	149	13
			423	0983	SS	0	Ohms	0	F	5	N/R	1	FAILED	750	PINS 9 AND 3	46	252	4
			423	0983	SS	0	Ohms	0	F	8	N/R	1	FAILED	1000	PINS 9 AND 3	46	252	4
			423	0983	SS	0	Ohms	0	F	9	N/R	2	FAILED	1250	PINS 9 AND 3	46	252	4
			423	0983	SS	0	Ohms	0	F	12	N/R	1	FAILED	1500	PINS 9 AND 3	46	252	4
8155	1	Digital, Memory, RAM	N/R															
			384	N/R	SS	1000	Ohms	200E-12	F	1	N/R	1	FAILED	700	EACH PIN(+)	52	123	24
8155	3	Digital, Memory, RAM	VAR															
			424	1083	SS	1500	Ohms	100E-12	F	14	N/R	1	FAILED	1750	PINS 4,7,9, AND 10	46	149	13
			424	1083	SS	1500	Ohms	100E-12	F	13	N/R	3	FAILED	1750	PINS 4,7,9, AND 10	46	149	13
			424	1083	SS	1500	Ohms	100E-12	F	16	N/R	10	FAILED	2000	PINS 4,7,9, AND 10	46	149	13
			423	1083	SS	0	Ohms	0	F	16	N/R	1	FAILED	2000	PINS 1,2,12, AND 37	100	252	4
			423	1083	SS	0	Ohms	0	F	26	N/R	1	FAILED	3250	PINS 1,2,12, AND 37	100	252	4
8155	0	Ohms	0	F	30	N/R	1	FAILED	3750	PINS 1,2,12, AND 37	100	252	4					

RAC ESD Database

Part Number	Part ESD	Part	Description										Technology				
			Mr. Class		Description								Failure Criteria	Test Remarks	General Remarks		
			VAR	3	Digital, Memory, RAM	Test	Test	Test	Test	Test	Test	Test				Test	Test
8155	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test
	Source	Date	Type	Resistance	Capacitance	Pulses	Date	Code	Devices	Number	Test	Test	Test	Test	Test	Test	Test
	423	1083	SS	0	Ohms	0	F	29	N/R	2	FAILED	3750 PINS	1,2,12, AND 37	100	252	4	
	423	1083	SS	0	Ohms	0	F	32	N/R	2	FAILED	4000 PINS	1,2,12, AND 37	100	252	4	
	423	1083	SS	0	Ohms	0	F	33	N/R	1	FAILED	4250 PINS	1,2,12, AND 37	100	252	4	
	423	1083	SS	0	Ohms	0	F	35	N/R	1	FAILED	4500 PINS	1,2,12, AND 37	100	252	4	
	423	1083	SS	0	Ohms	0	F	37	N/R	2	FAILED	4750 PINS	1,2,12, AND 37	100	252	4	
8155	INT	1	Digital, Memory, RAM											HMOS			
	429	N/R	GN	0	Ohms	50E-12	F	3	N/R	10	PASSED	600 PINS	8,9,AND 11	13	237	13	
8156	INT	1	Digital, Memory, RAM											HMOS			
	429	N/R	GN	0	Ohms	50E-12	F	3	N/R	10	PASSED	600 N/R		13	237	13	
8185	INT	1	Digital, Memory, RAM											HMOS			
	428	N/R	GN	1500 Ohms	100E-12	F	5	N/R	10	PASSED	1200 PINS	13,15,16,AND 17	13	252	13		
	429	N/R	GN	0	Ohms	50E-12	F	3	N/R	10	PASSED	600 PINS	10,11,12,15,16,AND 17	13	237	13	
	428	N/R	GN	1500 Ohms	100E-12	F	5	N/R	10	PASSED	1200 N/R		13	252	13		
	429	N/R	GN	0	Ohms	50E-12	F	3	N/R	10	PASSED	600 N/R		13	237	13	
8202	INT	1	Digital, Memory, RAM, Dynamic											HMOS			
	428	N/R	GN	1500 Ohms	100E-12	F	5	N/R	10	PASSED	1200 N/R		13	252	13		

RAC ESD Database

Part Number	ESD Part	Mfr Class	Description	Technology	
				HMOS	HMOS
9202	INT	1	Digital, Memory, RAM, Dynamic	Failure Test Criteria	
				13	252
8203	INT	1	Digital, Memory, RAM, Dynamic	General Remarks	
				13	252
8206	INT	1	Digital, Error Detect/Correct	Failure Test Criteria	
				13	252
8207	INT	1	Digital, Memory, RAM, Dynamic	Failure Test Criteria	
				13	252
8208	INT	1	Digital, Memory, RAM, Dynamic	Failure Test Criteria	
				13	252

Part Number	ESD Part	Mfr Class	Description	Test Date	Test Type	Resistance	Capacitance	Pulses	Code	Number	Devices	Test Result	Voltage	Pin	Combination	Failure Test Criteria	General Remarks
8203	INT	1	Digital, Memory, RAM, Dynamic	428	N/R	GN	1500 Ohms	100E-12 F	5	N/R	10	PASSED	1200 N/R			13	252
				428	N/R	GN	1500 Ohms	100E-12 F	5	N/R	10	PASSED	1200 N/R			13	252
8206	INT	1	Digital, Error Detect/Correct	429	N/R	GN	0 Ohms	50E-12 F	3	N/R	10	PASSED	600 N/R			13	237
				428	N/R	GN	1500 Ohms	100E-12 F	3	N/R	10	PASSED	1200 N/R			13	252
8207	INT	1	Digital, Memory, RAM, Dynamic	429	N/R	GN	0 Ohms	50E-12 F	3	N/R	10	FAILED	500 N/R			13	237
				429	N/R	GN	0 Ohms	50E-12 F	5	N/R	10	FAILED	1100 N/R			13	252
8208	INT	1	Digital, Memory, RAM, Dynamic	428	N/R	GN	1500 Ohms	100E-12 F	5	N/R	10	PASSED	1200 N/R			13	252
				429	N/R	GN	0 Ohms	50E-12 F	3	N/R	10	FAILED	450 N/R			13	237
8208	INT	1	Digital, Memory, RAM, Dynamic	429	N/R	GN	0 Ohms	50E-12 F	3	N/R	10	FAILED	550 N/R			13	237
				429	N/R	GN	0 Ohms	50E-12 F	3	N/R	10	FAILED	450 N/R			13	237
8208	INT	1	Digital, Memory, RAM, Dynamic	429	N/R	GN	0 Ohms	50E-12 F	3	N/R	10	FAILED	450 N/R			13	237
				428	N/R	GN	1500 Ohms	100E-12 F	5	N/R	10	PASSED	1200 N/R			13	252

RAC ESD Database

Part Number	Part ESD		Part Description	Technology			
	Mfr	Class		1	2	3	4
8212	INT	N/R	GN	1500 Ohms	100E-12 F	5 N/R	560 PIN 11
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Number Date	Test Voltage
	428	N/R	GN	1500 Ohms	100E-12 F	5 N/R	560 PIN 11
8214	INT	N/R	GN	1500 Ohms	100E-12 F	5 N/R	775 PINS 2,6,7, AND 20
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Number Date	Test Voltage
	428	N/R	GN	1500 Ohms	100E-12 F	5 N/R	775 PINS 2,6,7, AND 20
8224	INT	N/R	GN	1500 Ohms	100E-12 F	5 N/R	620 PINS 2 AND 5
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Number Date	Test Voltage
	428	N/R	GN	1500 Ohms	100E-12 F	5 N/R	620 PINS 2 AND 5
8228	INT	N/R	GN	1500 Ohms	100E-12 F	5 N/R	512 PINS 1,6, AND 7
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Number Date	Test Voltage
	428	N/R	GN	1500 Ohms	100E-12 F	5 N/R	512 PINS 1,6, AND 7
82284	INT	N/R	GN	1500 Ohms	100E-12 F	5 N/R	1200 2,3,4,6,7,11,12,13,16,17
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Number Date	Test Voltage
	429	N/R	GN	0 Ohms	50E-12 F	3 N/R	600 ALL INPUT PINS
	428	N/R	GN	1500 Ohms	100E-12 F	5 N/R	1200 2,3,4,6,7,11,12,13,16,17
82288	SIG	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1576 N/R
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Number Date	Test Voltage
	029	N/R	N/R	1500 Ohms	100E-12 F	1 N/R	1576 N/R
82288	INT	N/R	GN	0 Ohms	50E-12 F	3 N/R	600 PIN 19
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Number Date	Test Voltage
	429	N/R	GN	0 Ohms	50E-12 F	3 N/R	600 PIN 19

RAC ESD Database

Part Number	ESD Class	Part Description	Technology	
			Failure Criteria	General Remarks
82288	INT	1 Digital, Controller	HMOS	13
82289	INT	1 Digital	HMOS	13
429	N/R	GN 0 Ohms 50E-12 F	10 PASSED	600 N/R 13
428	N/R	GN 1500 Ohms 100E-12 F	10 PASSED	1200 N/R 13
430	N/R	GN 10M Ohms N/R F	10 PASSED	1500 N/R 13
8237	INT	1 Digital, Controller	HMOS	13
429	N/R	GN 0 Ohms 50E-12 F	10 FAILED	400 N/R 13
428	N/R	GN 1500 Ohms 100E-12 F	10 PASSED	1200 N/R 13
428	N/R	GN 1500 Ohms 100E-12 F	10 PASSED	1200 PIN 5 13
428	N/R	GN 1500 Ohms 100E-12 F	10 PASSED	1200 PINS 11,12,13,16,17,AND 18 13
428	N/R	GN 1500 Ohms 100E-12 F	10 PASSED	1200 N/R 13
429	N/R	GN 0 Ohms 50E-12 F	10 PASSED	600 N/R 13
8238	INT	1 Digital, Line/Bus Driver	HMOS	13
428	N/R	GN 1500 Ohms 100E-12 F	10 FAILED	512 PINS 2,3, AND 22 13
8243	INT	1 Digital, Expander, Input-Output	HMOS	13
428	N/R	GN 1500 Ohms 100E-12 F	10 PASSED	1200 N/R 13

RAC ESD Database

Part Number	Part ESD		Part Description	Technology																	
	Mfr	Class		HMOS																	
8243	INT	1	Digital, Expander, Input-Output																		
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Ohms	Test Pulses	Test Code	Test Date	Test Number	Test Devices	Test Result	Test Voltage	Test Pin	Test Combination	Failure Criteria	Test Remarks	General Remarks			
	429	N/R	GN	0	Ohms	50E-12	F	3	N/R	10	PASSED	600	N/R	13	237	13					
82501	INT	1	Digital, Transceiver, Ethernet																		
	429	N/R	GN	0	Ohms	50E-12	F	3	N/R	10	FAILED	350	N/R	13	237	13					
										10	FAILED	350	N/R	13	237	13					
8251	INT	1	Digital, Controller, Communications, Programmable																		
	429	N/R	GN	0	Ohms	50E-12	F	3	N/R	10	FAILED	550	N/R	13	237	13					
										10	FAILED	550	N/R	13	237	13					
8253	INT	1	Digital, Timer, Programmable Interval																		
	393	0984	SS	1500	Ohms	100E-12	F	1	N/R	2	FAILED	2000	15(INPUT)	24(VCC)	102	271	13				
	429	N/R	GN	0	Ohms	50E-12	F	3	N/R	10	PASSED	600	N/R	13	237	13					
										10	FAILED	550	N/R	13	237	13					
	428	N/R	GN	1500	Ohms	100E-12	F	5	N/R	10	FAILED	1100	N/R	13	252	13					
8253	N/R	1	Digital, Timer, Programmable Interval																		
	384	N/R	SS	1000	Ohms	200E-12	F	1	N/R	1	FAILED	1400	EACH PIN(+)	52	121	24					
										1	FAILED	800	EACH PIN(+)	52	129	24					
8254	INT	1	Digital, Counter/Divider																		
	429	N/R	GN	0	Ohms	50E-12	F	3	N/R	10	FAILED	500	N/R	13	237	13					

RAC ESD Database

Part Number	(Cont'd)	Part ESD		Part Description	Technology											
		Mfr	Class		HMOS											
8254		INT	1	Digital, Counter/Divider												
		Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Number Pulses	Date Code	Devices	Test Result	Test Voltage	Test Pin	Test Combination	Failure Criteria	Test Remarks	General Remarks
		428	N/R	GN	1500 Ohms	100E-12 F	5	N/R	10	PASSED	1200	N/R		13	252	13
									10	PASSED	1200	N/R		13	252	13
		429	N/R	GN	0	Ohms	50E-12 F	3	N/R	10	FAILED	550	N/R	13	237	13
									10	PASSED	600	N/R		13	237	13
									10	PASSED	600	N/R		13	237	13
8255		INT	1	Digital, Buffer, Schmitt Trigger	HMOS											
		429	N/R	GN	0	Ohms	50E-12 F	3	N/R	10	FAILED	550	N/R	13	237	13
8256		INT	1	Digital, Transceiver	HMOS											
		429	N/R	GN	0	Ohms	50E-12 F	3	N/R	10	PASSED	600	N/R	13	237	13
		428	N/R	GN	1500 Ohms	100E-12 F	5	N/R	10	PASSED	1200	N/R		13	252	13
8257		INT	1	Digital, Controller	HMOS											
		429	N/R	GN	0	Ohms	50E-12 F	3	N/R	10	FAILED	380	N/R	13	237	13
82586		INT	1	Digital, Processing Unit, Central	HMOS											
		429	N/R	GN	0	Ohms	50E-12 F	3	N/R	10	FAILED	400	N/R	13	237	13
		428	N/R	GN	1500 Ohms	100E-12 F	5	N/R	10	FAILED	400	N/R		13	252	13
		429	N/R	GN	0	Ohms	50E-12 F	3	N/R	10	FAILED	400	N/R	13	237	13
82588		INT	1	Digital, Controller	HMOS											
		429	N/R	GN	0	Ohms	50E-12 F	3	N/R	10	FAILED	450	N/R	13	237	13

295

Part Number	Part ESQ		Part Description	Technology													
	Mfr	Class		Test Date	Test Type	Resistance	Capacitance	Pulses	Date Code	Number Devices	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks	
82588	INT	1	Digital, Controller	428	N/R	GN	1500 Ohms	100E-12 F	5	N/R	10	PASSED	1200 N/R	13	252	13	
8259	INT	1	Digital, Controller	428	N/R	GN	1500 Ohms	100E-12 F	5	N/R	10	FAILED	950 PINS 3,26,AND 27	13	252	13	
											10	PASSED	1200 N/R	13	252	13	
				429	N/R	GN	0	Ohms	50E-12 F	3	N/R	10	PASSED	600 N/R	13	237	13
8259A	AMD	1	Digital, Processing Unit, Central	392	1186	SS	1500 Ohms	100E-12 F	1	N/R	5	FAILED	450 EACH PIN TO 14 & 28 (+ -)	19	252	13	
8272	INT	1	Digital, Controller	428	N/R	GN	1500 Ohms	100E-12 F	5	N/R	10	PASSED	1200 N/R	13	252	13	
				429	N/R	GN	0	Ohms	50E-12 F	3	N/R	10	PASSED	600 N/R	13	237	13
8274	INT	1	Digital, Controller	429	N/R	GN	0	Ohms	50E-12 F	3	N/R	10	FAILED	550 N/R	13	237	13
											10	FAILED	550 N/R	13	237	13	
8276	INT	1	Digital, Controller	428	N/R	GN	1500 Ohms	100E-12 F	5	N/R	10	PASSED	1200 N/R	13	252	13	

RAC ESD Database

Part Number	Part ESD		Part		Technology	
	Mfr	Class	Description			
8279	INT	1	Digital, Controller, Keyboard			HMOS
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Voltage
	429	N/R	GN	0	Ohms	50E-12 F
						3 N/R
						10 PASSED
						600 N/R
						13
						237
						13
8282	INT	1	Digital, Latch			HMOS
	428	N/R	GN	1500	Ohms	100E-12 F
						5 N/R
						10 PASSED
						1200 N/R
						13
						252
						13
8283	INT	1	Digital, Latch			HMOS
	428	N/R	GN	1500	Ohms	100E-12 F
						5 N/R
						10 FAILED
						669 PINS 1,2,AND 19
						1200 N/R
						13
						252
						13
8284	INT	1	Digital, Multivibrator			HMOS
	428	N/R	GN	1500	Ohms	100E-12 F
						5 N/R
						10 FAILED
						325 PIN 11
						887 PIN 11
						1200 N/R
						300 N/R
						13
						252
						13
						237
						13
8286	INT	1	Digital, Transceiver			HMOS
	428	N/R	GN	1500	Ohms	100E-12 F
						5 N/R
						10 PASSED
						1200 N/R
						13
						252
						13
8287	INT	1	Digital, Transceiver			HMOS
	428	N/R	GN	1500	Ohms	100E-12 F
						5 N/R
						10 PASSED
						1200 N/R
						13
						252
						13
8288	INT	1	Digital, Controller			HMOS
	428	N/R	GN	1500	Ohms	100E-12 F
						5 N/R
						10 FAILED
						1193 PINS 1,2,AND 19
						13
						252
						13

RAC ESD Database

Part Number	Part	Part ESD		Part Description	Technology											
		Mfr	Class		HMOS											
8288		INT	1	Digital, Controller												
		Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Number Pulses	Date Code	Number Devices	Test Result	Test Voltage	Test Pin Combination	Failure Criteria	Test Remarks	General Remarks	
		428	N/R	GN	1500 Ohms	100E-12 F	5	N/R	10	PASSED	12.00	N/R	13	252	13	
									10	FAILED	550	N/R	13	252	13	
		429	N/R	GN	0	Ohms	50E-12 F	3	N/R	10	FAILED	150	N/R	13	237	13
8289		INT	1	Digital, Controller, Bus Arbitrator	HMOS											
		428	N/R	GN	1500 Ohms	100E-12 F	5	N/R	10	FAILED	887	PINS 4,5,AND 6	13	252	13	
8291		INT	1	Digital, Controller, Bus Arbitrator	HMOS											
		429	N/R	GN	0	Ohms	50E-12 F	25	N/R	10	PASSED	600	N/R	13	237	13
8293		INT	1	Digital, Transceiver	HMOS											
		429	N/R	GN	0	Ohms	50E-12 F	3	N/R	10	PASSED	600	N/R	13	237	13
82C52		HAR	1	Digital, Transceiver	CMOS											
		436	1186	SS	1500 Ohms	100E-12 F	10	N/R	1	FAILED	1200	INPUT TO GND	5	252	3	
		436	1186	SS	1500 Ohms	100E-12 F	5	N/R	1	FAILED	600	INPUT TO GND	5	252	3	
		436	1186	SS	1500 Ohms	100E-12 F	7	N/R	1	FAILED	800	OUTPUT TO INPUT	5	252	3	
		436	1186	SS	1500 Ohms	100E-12 F	5	N/R	1	FAILED	600	INPUT TO OUTPUT	5	252	3	
									1	FAILED	600	VCC TO OUTPUT	5	252	3	
		436	1186	SS	1500 Ohms	100E-12 F	9	N/R	1	FAILED	1000	INPUT TO GND	5	252	3	

Part Number	Part ESD		Part Description	Test				Number		Date		Pulses		Code		Test		Voltage		Pin Combination		Failure Criteria		Test Remarks		General Remarks	
	Mfr	Class		Source	Date	Type	Resistance	Capacitance	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test
82C59A	HAR	1	Digital, Controller	436	1186 SS	1500 Ohms	100E-12 F	3	8709	2	FAILED	400 VCC TO OUTPUT	5	252	3												
82C82	HAR	1	Digital, Line/Bus Driver	436	1186 SS	1500 Ohms	100E-12 F	5	8720	2	FAILED	600 INPUT TO GND	5	252	3												
82C84A	HAR	1	Digital, Line/Bus Driver	436	1186 SS	1500 Ohms	100E-12 F	6	8720	2	FAILED	700 INPUT TO GND	5	252	3												
82C88	INT	1	Digital, Controller	430	N/R GN	10M Ohms	N/R F	5	N/R	10	PASSED	1500 PIN 11	13	252	13												
				429	N/R GN	0 Ohms	50E-12 F	3	N/R	10	PASSED	600 N/R	13	149	13												
				428	N/R GN	1500 Ohms	100E-12 F	3	N/R	10	PASSED	1200 PINS 1,2,3,6,15,18,AND 19	13	237	13												
82C88	HAR	1	Digital, Controller	436	1186 SS	1500 Ohms	100E-12 F	7	N/R	2	FAILED	800 INPUT TO GND	5	252	3												
										2	FAILED	800 INPUT TO GND	5	252	3												
										2	FAILED	800 INPUT TO GND	5	252	3												
82S114	N/R	1	Digital, Memory, PROM	030	N/R N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000 N/R	103	252	13												

RAC ESD Database

RAC ESD Database

Part Number	Part ESD		Part Description	Test				Number		Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks	
	Mfr	Class		Date	Type	Resistance	Capacitance	Pulses	Code						
															Source
82S123	N/R	1	Digital, Memory, PROM	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000 N/R	103	252	13
82S123	SIG	1	Digital, Memory, PROM										STTL		
436	1186 SS		1500 Ohms	100E-12 F	6	N/R	1	FAILED	700	INPUT TO OUTPUT	5	252	3		
82S129	N/R	1	Digital, Memory, PROM										STTL		
030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000	N/R	103	252	13		
82S129	SIG	1	Digital, Memory, PROM										STTL		
436	1186 SS		1500 Ohms	100E-12 F	6	N/R	5	FAILED	700	INPUT TO GND	5	252	3		
82S131	N/R	1	Digital, Memory, PROM										STTL		
030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000	N/R	103	252	13		
82S137	N/R	1	Digital, Memory, PROM										STTL		
030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000	N/R	103	252	13		
82S141	N/R	1	Digital, Memory, PROM										STTL		
030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000	N/R	103	252	13		
82S181	N/R	1	Digital, Memory, PROM										STTL		
030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000	N/R	103	252	13		

RAC ESD Database

Part Number	Part ESD		Part	Description		Technology	
	Mfr	Class		Mfr	Class	Failure Criteria	General Remarks
82S185	N/R	N/R	1	Digital, Memory, PROM	100E-12 F	103	252 13
82S191	N/R	N/R	1	Digital, Memory, PROM	100E-12 F	103	252 13
82S191	SIG	N/R	1	Digital, Memory, PROM	100E-12 F	103	252 13
82S2708	N/R	N/R	1	Digital, Memory, PROM	100E-12 F	103	252 13
82S34	N/R	N/R	2	Digital, Multiplexer	100E-12 F	103	252 13
82S67	N/R	N/R	3	Digital, Multiplexer	100E-12 F	103	252 13

RAC ESD Database

Part Number	Part ESD Description										Technology				
	Mfr Class		Description								Failure Criteria	Test Remarks	General Remarks		
	SIG	N	Digital, Gate	Test Type	Test Resistance	Test Capacitance	Number Pulses	Date Code	Device Code	Test Voltage				Pin Combination	
8491	029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	164722	N/R	102	188	13	
	PLE 1 Digital, Line/Bus Driver														
	393	0385	SS	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000	8(INPUT) 2(VCC)	102	252	13	
	PLE 1 Digital, Counter/Divider														
	393	1184	SS	1500 Ohms	100E-12 F	1	N/R	2	FAILED	1500	15(INPUT) 8(VEE)	102	252	13	
8741	INT 1 Digital, Transceiver, Input-Output, RAM														
	429	N/R	GN	0	Ohms	50E-12 F	3	N/R	10	FAILED	500	N/R	13	237	13
	428	N/R	GN	1500 Ohms	100E-12 F	5	N/R	10	FAILED	1050	N/R	13	252	13	
								10	FAILED	1100	N/R	13	252	13	
								10	FAILED	900	N/R	13	252	13	
8742	429	N/R	GN	0	Ohms	50E-12 F	3	N/R	10	FAILED	550	N/R	13	237	13
								10	FAILED	500	N/R	13	237	13	
	INT 1 Digital, Controller, Peripheral Interface														
	429	N/R	GN	0	Ohms	50E-12 F	3	N/R	10	PASSED	600	N/R	13	237	13
	428	N/R	GN	1500 Ohms	100E-12 F	5	N/R	10	PASSED	1200	N/R	13	252	13	
8744	INT 1 Digital, Memory, EPROM														
	429	N/R	GN	0	Ohms	50E-12 F	3	N/R	10	PASSED	600	N/R	13	237	13

RAC ESD Database

Part Number	(Cont'd)	Part ESD		Part Description	Technology				
		Mfr	Class		Failure Criteria	Test Remarks	General Remarks		
9744		INT	1	Digital, Memory, EPROM					HMOS
		Test	Test	Test	Test	Test	Test	Test	Test
		Source	Date	Type	Resistance	Capacitance	Pulses	Date	Number
		428	N/R	GN	1500 Ohms	100E-12 F	5	N/R	10

RAC ESD Database

Part Number	Part ESD		Part		Technology										
	Mfr	Class	Description		DTL										
9093	FSC	3	Digital, Flip-Flop												
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Number Code	Date Devices	Test Result	Test Voltage	Test Pin	Test Combination	Failure Criteria	Test Remarks	General Remarks
	029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	6123	N/R	102	188	13	
9102	AMD	1	Digital, Memory, RAM, Static		NMOS										
	003	1175	SS	0	Ohms	100E-12 F	1	N/R	1	FAILED	300 INPUT(+) PR. SUPPLY(-)	102	252	13	
914	MOT	3	Digital, Gate		RTL										
	029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	5848	N/R	102	189	13	
930	RAY	3	Digital, Gate		DTL										
	029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	4283	N/R	102	188	13	
9309	FSC	2	Digital, Multiplexer		TTL										
	390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1	PASSED	2000	S/R	105	247	11	
93415	MOT	1	Digital, Memory, RAM, Static		TTL										
	027	N/R	GN	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1000	N/R	47	252	12	
								13	PASSED	1000	N/R	47	252	12	
93449	FSC	3	Digital		TTL										
	029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	8060	N/R	102	189	13	
935	FSC	2	Digital, Inverter, Buffer		DTL										
	390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1	PASSED	2000	S/R	105	247	11	

RAC ESD Database

Part Number	Part	ESD Class	Description	Technology											
				TTL											
Test Source	Test Date	Test Type	Resistance	Capacitance	Test	Number	Date	Pulses	Code	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
940	FSC	2	Digital, Inverter, Buffer												
				390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1	PASSED	2000 S/R	105	247
9428-037	AM	2	Digital, Array, PAL												
				392	0986	SS	1500 Ohms	100E-12 F	1	N/R	3	FAILED	2500 EACH PIN TO 10 & 20 (+ -)	19	273
94459	FSC	3	Digital, Gate												
				029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	13426 N/R	102	188
946	NSC	3	Digital, Gate												
				029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	5237 N/R	102	188
946	N/R	3	Digital, Gate												
				245	N/R	SS	100 Ohms	N/R	1	N/R	15	FAILED	58 INPUT(+) GND(-)	47	186
948	NSC	3	Digital, Flip-Flop												
				029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	5227 N/R	102	188

RAC ESD Database

Part Number	Part ESD		Part		Description				Technology						
	Mfr	Class	Test	Test	Resistance	Capacitance	Pulses	Code	Number	Date	Devices	Test	Failure Criteria	General Remarks	
9601	FSC	2	Digital, Multivibrator												TTL
	Test Source	390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1	PASSED	2000 S/R	105	247	11	
	Test Type														
	Test Result														
	Test Voltage														
9602	FSC	1	Digital, Multivibrator												TTL
	Test Source	390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1	PASSED	2000 S/R	105	247	11	
	Test Type														
	Test Result														
	Test Voltage														
9614	FSC	1	Digital, Line/Bus Driver												Bipolar
	Test Source	026	0178	SS	100 Ohms	200E-12 F	1	N/R	4	FAILED	963 INPUT(5)(+) GND(8)(-)	6	285	13	
	Test Type														
	Test Result														
	Test Voltage														
9614	TEX	2	Digital, Line/Bus Driver												Bipolar
	Test Source	390	N/R	GN	1500 Ohms	100E-12 F	5	N/R	1	PASSED	2000 S/R	105	247	11	
	Test Type														
	Test Result														
	Test Voltage														
9614	MOT	3	Digital, Line/Bus Driver												Bipolar
	Test Source	436	1186	SS	1500 Ohms	100E-12 F	18	N/R	5	PASSED	4000 N/R	5	252	3	
	Test Type														
	Test Result														
	Test Voltage														

RAC ESD Database

Part Number	(Cont'd)	Part ESD		Part Description	Technology									
		Mfr	Class											
9614		N/R	1	Digital, Line/Bus Driver	Bipolar									
Test		Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Number	Date	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
030		N/R	N/R	1500 Ohms	100E-12 F	1	N/R		1	FAILED	2000 N/R	103	252	13
									1	FAILED	2000 N/R	103	252	13
9615		FSC	1	Digital, Line/Bus Receiver										
026		0178 SS	100	Ohms	200E-12 F	1	N/R		4	FAILED	230 N/R	6	285	13
436		1186 SS	1500	Ohms	100E-12 F	10	N/R		5	FAILED	1200 INPUT TO GND	5	252	3
9615		TEX	1	Digital, Line/Bus Receiver										
436		1186 SS	1500	Ohms	100E-12 F	8	N/R		5	FAILED	900 INPUT TO OUTPUT	5	252	3
9615		N/R	3	Digital, Line/Bus Receiver										
030		N/R	N/R	1500	Ohms	100E-12 F	1	N/R	1	FAILED	12000 N/R	103	252	13
245		N/R	SS	100	Ohms	N/R	1	N/R	15	FAILED	90 INPUT(+) INPUT(-)	47	186	21
9616		N/R	3	Digital, Line/Bus Driver										
245		N/R	SS	100	Ohms	N/R	1	N/R	15	FAILED	112 INPUT(+) INPUT(-)	47	186	21
9900		TEX	1	Digital, Processing Unit, Central										
383		N/R	SS	1500	Ohms	100E-12 F	1	N/R	1	FAILED	113 INJ.(-) APTT(+)	49	188	8
9908		FSC	3	Digital, Encoder, Octal/Binary										
029		N/R	N/R	1500	Ohms	100E-12 F	1	N/R	1	FAILED	9561 N/R	102	188	13

RAC ESD Database

Part Number	Part ESD		Part Description	Technology			
	Mfr	Class		Failure Criteria	Test Remarks	General Remarks	
9909	FSC	3	Digital, Gate	102	188	13	
	Test Date	Test Type	Test Resistance	Test Capacitance	Test Result	Test Voltage	Pin Combination
029	N/R	N/R	1500 Ohms	100E-12 F	1 FAILED	7342 N/R	
9910	FSC	3	Digital, Gate	102	188	13	
029	N/R	N/R	1500 Ohms	100E-12 F	1 FAILED	4595 N/R	
9911	FSC	3	Digital, Gate	102	188	13	
029	N/R	N/R	1500 Ohms	100E-12 F	1 FAILED	6371 N/R	
9912	FSC	3	Digital	102	188	13	
029	N/R	N/R	1500 Ohms	100E-12 F	1 FAILED	14260 N/R	
9930	FSC	2	Digital, Gate	102	188	13	
029	N/R	N/R	1500 Ohms	100E-12 F	1 FAILED	3514 N/R	
9932	FSC	2	Digital, Gate	102	188	13	
029	N/R	N/R	1500 Ohms	100E-12 F	1 FAILED	3883 N/R	
9944	NSC	2	Digital, Gate	102	188	13	
029	N/R	N/R	1500 Ohms	100E-12 F	1 FAILED	3444 N/R	
9945	NSC	2	Digital, Flip-Flop	102	188	13	
029	N/R	N/R	1500 Ohms	100E-12 F	1 FAILED	3708 N/R	

RAC ESD Database

Part Number	(Cont'd)	Part ESD		Part Description	Test										Technology		
		Mfr	Class		Test Type	Resistance	Capacitance	Pulses	Code	Number	Devices	Test Result	Pin Combination	Failure Criteria	Test Remarks	General Remarks	
9945		FSC	3	Digital, Flip-Flop	029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	4481 N/R	102	188	13
9946		FSC	3	Digital, Gate	029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	7970 N/R	102	188	13
9948		FSC	3	Digital, Flip-Flop	029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	4774 N/R	102	188	13
AD5216		ITE	1	Digital, Converter, A/D-D/A	436	1186 SS	1500 Ohms	100E-12 F	9	N/R	2	FAILED	1000 INPUT TO GND		5	252	3
AD558T		ANA	1	Digital, Converter, A/D-D/A	392	1086 SS	1500 Ohms	100E-12 F	1	N/R	5	FAILED	450 EACH PIN TO 11 & 12 (+ -)		19	252	13
AD574		ANA	3	Digital, Converter, A/D-D/A	436	1186 SS	1500 Ohms	100E-12 F	18	8633	1	PASSED	4000 N/R		5	252	3
AD581		ANA	1	Linear, Voltage Reference	436	1186 SS	1500 Ohms	100E-12 F	10	8644	2	FAILED	1200 INPUT TO GND		5	252	3
AD584SH		ANA	1	Linear, Voltage Reference	392	1086 SS	1500 Ohms	100E-12 F	1	N/R	5	FAILED	1050 EACH PIN TO 8 (+ -)		19	252	13

RAC ESD Database

Part Number	Part ESD		Part		Technology	
	Mfr	Class	Description			
AJ584TH	ANA	3	Linear, Voltage Reference		Bipolar	
	Test Source	Test Date	Test Resistance	Test Capacitance	Test Pulses	Test Number
	436	0788	SS	1500 Ohms	100E-12 F	18 N/R
						2 PASSED
						4000 N/R
						5 252 3
AD590	ANA	1	Digital, Converter, A/D-D/A		Bipolar	
	436	1186	SS	1500 Ohms	100E-12 F	12 N/R
						2 FAILED
						1600 INPUT TO GND
						5 252 3
	436	1186	SS	1500 Ohms	100E-12 F	11 N/R
						1 FAILED
						1400 INPUT TO INPUT
						2 FAILED
						1400 INPUT TO OUTPUT
						5 252 3
	436	1186	SS	1500 Ohms	100E-12 F	1 N/R
						1 FAILED
						200 INPUT TO INPUT
						5 252 3
	436	1186	SS	1500 Ohms	100E-12 F	12 N/R
						1 FAILED
						1600 INPUT TO INPUT
						5 252 3
	436	1186	SS	1500 Ohms	100E-12 F	15 N/R
						3 FAILED
						2500 OUTPUT TO INPUT
						5 252 3
ADC0800	NSC	1	Digital, Converter, A/D-D/A		CMOS	
	421	0184	SS	1500 Ohms	100E-12 F	3 N/R
						1 FAILED
						500 PINS 5,6,AND 7
						102 252 13
ADC0808CJ	NSC	1	Digital, Converter, A/D-D/A		Bipolar	
	392	1186	SS	1500 Ohms	100E-12 F	1 N/R
						5 FAILED
						1050 EACH PIN TO 11 & 13 (+ -)
						19 252 13
ADC0811	NSC	2	Digital, Converter, A/D-D/A		CMOS	
	421	0184	SS	1500 Ohms	100E-12 F	11 8436
						1 FAILED
						2500 PINS 11,15,AND 17-19
						102 252 13
ADC0819	NSC	2	Digital, Converter, A/D-D/A		CMOS	
	421	0184	SS	1500 Ohms	100E-12 F	18 N/R
						1 FAILED
						3500 PINS 4,9,23,24,AND 26
						102 252 13

RAC ESD Database

Part Number	(Cont'd)	Part		Mfr Class	Description	Technology																																						
		Part	Part			CMOS																																						
ADC0819																																												
NSC 2 Digital, Converter, A/D-D/A																																												
<table><tr><th>Test Source</th><th>Test Date</th><th>Test Type</th><th>Test Resistance</th><th>Test Capacitance</th><th>Test Pulses</th><th>Number Date</th><th>Test Result</th><th>Test Voltage</th><th>Pin Combination</th><th>Failure Criteria</th><th>Test Remarks</th><th>General Remarks</th></tr><tr><td>422</td><td>0184</td><td>SS</td><td>0</td><td>Ohms</td><td>125E-12 F</td><td>3</td><td>N/R</td><td>1</td><td>FAILED</td><td>500 PINS 4,9,23,24, AND 26</td><td>102</td><td>289</td><td>13</td></tr></table>																		Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Number Date	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks	422	0184	SS	0	Ohms	125E-12 F	3	N/R	1	FAILED	500 PINS 4,9,23,24, AND 26	102	289	13
Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Number Date	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks																																
422	0184	SS	0	Ohms	125E-12 F	3	N/R	1	FAILED	500 PINS 4,9,23,24, AND 26	102	289	13																															
ADC0820																																												
NSC 1 Digital, Converter, A/D-D/A																																												
421	0184	SS	1500	Ohms	100E-12 F	6	N/R	1	FAILED	1200 PINS 6-8, 11-13	102	252	13																															
422	0184	SS	0	Ohms	125E-12 F	2	N/R	1	FAILED	350 PINS 6-8, 11-13	102	289	13																															
ADC0838																																												
NSC 1 Digital, Converter, A/D-D/A																																												
421	0184	SS	1500	Ohms	100E-12 F	4	N/R	1	FAILED	700 PINS 13,16,17,AND 18	102	252	13																															
421	0184	SS	1500	Ohms	100E-12 F	18	N/R	1	FAILED	3500 N/R	102	252	13																															
AM111																																												
AMD 1 Linear, Comparator																																												
029	N/R	N/R	1500	Ohms	100E-12 F	1	N/R	1	FAILED	611 N/R	102	188	13																															
AM111																																												
N/R 3 Linear, Comparator																																												
030	N/R	N/R	1500	Ohms	100E-12 F	1	N/R	1	FAILED	11000 N/R	103	252	13																															
								1	FAILED	11000 N/R	103	252	13																															
AM26LS29																																												
AMD 2 Digital, Line/Bus Driver																																												
436	1186	SS	1500	Ohms	100E-12 F	16	N/R	1	FAILED	3000 INPUT TO OUTPUT	5	252	3																															
								1	FAILED	3000 INPUT TO OUTPUT	5	252	3																															
AM26LS31																																												
AMD 1 Digital, Line/Bus Driver																																												
436	1186	SS	1500	Ohms	100E-12 F	11	N/R	5	FAILED	1400 INPUT TO GND	5	252	3																															

RAC ESD Database

Part Number	Part (Cont'd)	Part ESD		Part Description	Technology	Failure Test					General Remarks										
		Mfr	Class			Test	Test	Test	Test	Test											
AM26LS31		AMD	1	Digital, Line/Bus Driver	LSTTL	Source	Date	Type	Resistance	Capacitance	Pulses	Number	Date	Code	Devices	Result	Voltage	Pin Combination	Criteria	Test	Remarks
						436	1186	SS	1500	Ohms	100E-12	F	8	N/R	1	FAILED	900	INPUT TO OUTPUT	5	252	3
AM26LS32		AMD	1	Digital, Line/Bus Receiver	LSTTL	436	0588	SS	1500	Ohms	100E-12	F	16	N/R	3	FAILED	3000	OUTPUT TO GROUND	5	252	3
						436	1186	SS	1500	Ohms	100E-12	F	14	N/R	1	FAILED	2000	OUTPUT TO GND	5	252	3
						436	1186	SS	1500	Ohms	100E-12	F	9	N/R	1	FAILED	1000	INPUT TO GND	5	252	3
AM26LS33		AMD	1	Digital, Line/Bus Receiver	LSTTL	436	1186	SS	1500	Ohms	100E-12	F	5	8622	1	FAILED	600	INPUT TO GND	5	252	3
AM687		AMD	1	Linear, Comparator	Bipolar	392	1186	SS	1500	Ohms	100E-12	F	1	N/R	5	FAILED	850	EACH PIN TO 6, 11 THEN 3,14	19	145	13
AT27C256		ATM	2	Digital, Memory, EPROM	CMOS	401	0187	SS	1500	Ohms	100E-12	F	5	N/R	1	PASSED	6200	PIN # 01 (Vpp),(+V)	60	288	1
						401	0187	SS	1500	Ohms	100E-12	F	5	N/R	1	PASSED	6200	PIN # 02 (A12),(+V)	60	288	1
						401	0187	SS	1500	Ohms	100E-12	F	5	N/R	1	PASSED	6200	PIN # 03 (A7),(+V)	60	288	1
						401	0187	SS	1500	Ohms	100E-12	F	5	N/R	1	FAILED	3000	PIN # 04 (A6),(+V)	60	288	1
						401	0187	SS	1500	Ohms	100E-12	F	5	N/R	1	PASSED	6200	PIN # 07 (A3),(+V)	60	288	1
						401	0187	SS	1500	Ohms	100E-12	F	5	N/R	1	PASSED	6200	PIN # 08 (A2),(+V)	60	288	1
						401	0187	SS	1500	Ohms	100E-12	F	5	N/R	1	PASSED	6200	PIN # (09),(+V)	60	288	1
						401	0187	SS	1500	Ohms	100E-12	F	5	N/R	1	PASSED	6200	PIN # 10 (A0),(+V)	60	288	1
						401	0187	SS	1500	Ohms	100E-12	F	5	N/R	1	PASSED	6200	PIN # 11 (00),(+V)	60	288	1

RAC ESD Database

Part Number (Cont'd)	Part ESD	Part	Technology									
Mfr	Class	Description	Failure Criteria	Test Remarks								
AT27C256	ATM	2 Digital, Memory, EPROM	CMOS									
Source	Date	Test Type	Resistance	Capacitance	Test	Number	Date	Devices	Test Result	Voltage	Pin Combination	General Remarks
401	0187	SS	1500 Ohms	100E-12 F		5	N/R		1 PASSED	6200	PIN # 12 (01),(+V)	60 288
									1 PASSED	6200	PIN # 13 (02),(+V)	60 288
									1 PASSED	6200	PIN # 15 (03),(+V)	60 288
									1 PASSED	6200	PIN # 16 (04),(+V)	60 288
									1 PASSED	6200	PIN # 17 (05),(+V)	60 288
									1 PASSED	6200	PIN # 18 (06),(+V)	60 288
									1 PASSED	6200	PIN # 19 (07),(+V)	60 288
									1 PASSED	6200	PIN # 20 (CE),(+V)	60 288
									1 PASSED	6200	PIN # 21 (A10),(+V)	60 288
									1 FAILED	3000	PIN # 22 (CE),(+V)	60 288
									1 FAILED	2800	PIN # 23 (A11),(+V)	60 288
									1 PASSED	6200	PIN # 24 (A9),(+V)	60 288
									1 FAILED	2400	PIN # 25 (A8),(+V)	60 288
									1 FAILED	2400	PIN # 26 (A13),(+V)	60 288
									1 FAILED	2800	PIN # 27 (A14),(+V)	60 288
									1 PASSED	6200	PIN # 28 (Vcc),(+V)	60 288
									1 PASSED	6200	PIN # 01 (Vpp),(-V)	60 288
									1 PASSED	6200	PIN # 02 (A12),(-V)	60 288
									1 PASSED	6200	PIN # 03 (A7),(-V)	60 288
									1 PASSED	6200	PIN # 04 (A6),(-V)	60 288
									1 PASSED	6200	PIN # 05 (A5),(-V)	60 288
									1 PASSED	6200	PIN # 06 (A4),(-V)	60 288
									1 PASSED	6200	PIN # 07 (A3),(-V)	60 288
									1 PASSED	6200	PIN # 08 (A2),(-V)	60 288
									1 PASSED	6200	PIN # 09 (A1),(-V)	60 288
									1 PASSED	6200	PIN # 10 (A0),(-V)	60 288
									1 PASSED	6200	PIN # 11 (00),(-V)	60 288
									1 PASSED	6200	PIN # 12 (01),(-V)	60 288
									1 PASSED	6200	PIN # 13 (02),(-V)	60 288
									1 PASSED	6200	PIN # 15 (03),(-V)	60 288
									1 PASSED	6200	PIN # 16 (04),(-V)	60 288
									1 PASSED	6200	PIN # 17 (05),(-V)	60 288
									1 PASSED	6200	PIN # 18 (06),(-V)	60 288

RAC ESD Database

Part Number	Part ESD	Part	Technology	
			Mfr Class	CMOS
AT27C256	ATM	0187 SS	2	Digital, Memory, EPROM
AT27C512	ATM	0187 SS	2	Digital, Memory, EPROM

RAC ESD Database

Part Number (Cont'd)	Part ESD	Part	Mfr Class		Description	Technology										
			ATM	2		Digital, Memory, EPROM	CMOS									
Source	Date	Type	Test	Resistance	Capacitance	Pulses	Number	Date	Devices	Test	Voltage	Pin	Combination	Failure	Test	General
401	0187	SS	1500 Ohms	100E-12 F		5	N/R		1	PASSED	6200	PIN # 22	(OE/Vpp),(+V)	60	287	1
									1	FAILED	2600	PIN # 23	(A11),(+V)	60	287	1
									1	FAILED	3000	PIN # 24	(A9),(+V)	60	287	1
									1	FAILED	2600	PIN # 25	(A8),(+V)	60	287	1
									1	FAILED	2600	PIN # 26	(A13),(+V)	60	287	1
									1	FAILED	2400	PIN # 27	(A14),(+V)	60	287	1
									1	FAILED	4200	PIN # 01	(A15),(-V)	60	287	1
									1	PASSED	6200	PIN # 02	(A12),(-V)	60	287	1
									1	PASSED	6200	PIN # 03	(A7),(-V)	60	287	1
									1	PASSED	6200	PIN # 04	(A6),(-V)	60	287	1
									1	PASSED	6200	PIN # 05	(A5),(-V)	60	287	1
									1	PASSED	6200	PIN # 06	(A4),(-V)	60	287	1
									1	PASSED	6200	PIN # 07	(A3),(-V)	60	287	1
									1	PASSED	6200	PIN # 08	(A2),(-V)	60	287	1
									1	PASSED	6200	PIN # 09	(A1),(-V)	60	287	1
									1	FAILED	4200	PIN # 10	(A0),(-V)	60	287	1
									1	PASSED	6200	PIN # 11	(00),(-V)	60	287	1
									1	PASSED	6200	PIN # 13	(02),(-V)	60	287	1
									1	PASSED	6200	PIN # 13	(02),(-V)	60	287	1
									1	PASSED	6200	PIN # 15	(03),(-V)	60	287	1
									1	PASSED	6200	PIN # 16	(04),(-V)	60	287	1
									1	PASSED	6200	PIN # 17	(05),(-V)	60	287	1
									1	PASSED	6200	PIN # 18	(06),(-V)	60	287	1
									1	PASSED	6200	PIN # 19	(07),(-V)	60	287	1
									1	PASSED	6200	PIN # 20	(0E),(-V)	60	287	1
									1	PASSED	6200	PIN # 21	(A10),(-V)	60	287	1
									1	PASSED	6200	PIN # 22	(0E/V),(-V)	60	287	1
									1	PASSED	6200	PIN # 23	(A11),(-V)	60	287	1
									1	PASSED	6200	PIN # 24	(A9),(-V)	60	287	1
									1	PASSED	6200	PIN # 25	(A8),(-V)	60	287	1
									1	PASSED	6200	PIN # 26	(A13),(-V)	60	287	1
									1	PASSED	6200	PIN # 27	(A14),(-V)	60	287	1
									1	PASSED	6200	PIN # 27	(A14),(-V)	60	287	1

RAC ESD Database

Part Number	Part ESD		Part Description	Technology
	Mfr Class	Part		
CD4000A	RCA	3	Digital, Gate	CMOS
CD4001	RCA	2	Digital, Gate	CMOS
CD4002BE	RCA	1	Digital, Gate	CMOS
CD4006B	RCA	1	Digital, Register, Shift	CMOS
CD4011	RCA	1	Digital, Gate	CMOS
CD4011	N/R	1	Digital, Gate	CMOS

RAC ESD Database

Technology
CMOS

Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test		Test	
------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--

CD4011UB

RCA 1 Digital, Gate

436	0788 SS	1500 Ohms	100E-12 F	100E-12 F	12	8742	2	2	2	2	1500 OUTPUT TO COMMON	5	252	3
-----	---------	-----------	-----------	-----------	----	------	---	---	---	---	-----------------------	---	-----	---

CMOS

CD4012UBF

RCA 1 Digital, Gate

436	0788 SS	1500 Ohms	100E-12 F	100E-12 F	5	8742	5	5	5	5	600 INPUT TO OUTPUT	5	252	3
-----	---------	-----------	-----------	-----------	---	------	---	---	---	---	---------------------	---	-----	---

CMOS

RAC ESD Database

Part Number (Cont'd)	Part ESD		Part Description	Technology			
	Mfr	Class		CMOS	Failure Criteria	Test Remarks	General Remarks
CD4012UBF	RCA	1	Digital, Gate				
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Test Number
	436	0788 SS	1500 Ohms	100E-12 F	15	8742	5
							5 FAILED
							2500 INPUT TO GROUND
							252
							3
CD4015B	RCA	1	Digital, Register, Shift				
	436	0234 SS	1500 Ohms	100E-12 F	3	N/R	10
							10 FAILED
							400 N/R
							252
							13
CD4017B-X	RCA	1	Digital, Counter/Divider				
	436	0185 SS	1500 Ohms	100E-12 F	3	N/R	10
							10 FAILED
							2000 N/R
							252
							13
CD4024	RCA	2	Digital, Counter/Divider, Binary				
	029	N/R	1500 Ohms	100E-12 F	1	N/R	1
							1 FAILED
							36281 N/R
	436	0488 SS	1500 Ohms	100E-12 F	17	N/R	5
							5 FAILED
							3500 INPUT TO COMMON
							252
							3
CD4024BCN	NSC	1	Digital, Counter/Divider, Binary				
	416	1285 SS	1500 Ohms	100E-12 F	1	N/R	10
							10 FAILED
							400 N/R
	417	0386 SS	0 Ohms	200E-12 F	4	N/R	5
							5 FAILED
							1000 N/R
	416	0486 SS	1500 Ohms	100E-12 F	4	N/R	10
							10 FAILED
							1000 N/R
							252
							13
CD4024BEX	RCA	1	Digital, Counter/Divider, Binary				
	416	0386 SS	1500 Ohms	100E-12 F	1	N/R	10
							10 FAILED
							1000 N/R
							252
							13
CD4030B	RCA	3	Digital, Gate				
	436	1186 SS	1500 Ohms	100E-12 F	18	8633	1
							1 PASSED
							4000 INPUT TO GND
							252
							3

RAC ESD Database

Part Number	Part ESD		Part Description	Technology							
	Mfr	Class			Test Date	Test Type	Resistance	Capacitance	Number	Date	General Remarks
CD40508	RCA	1	Digital, Inverter, Buffer	CMOS	436	1186 SS	1500 Ohms	100E-12 F	13	8633	1 FAILED
											1800 INPUT TO GND
											252
											3
CD4051BCN	NSC	1	Digital, Multiplexer	CMOS	416	0384 SS	1500 Ohms	100E-12 F	3	8312	5 FAILED
											400 N/R
											25
											252
											13
CD4066	RCA	2	Linear, Switch	CMOS	436	1186 SS	1500 Ohms	100E-12 F	15	8625	1 FAILED
											2500 INPUT TO GND
											5
											252
											3
CD4069UB	RCA	2	Digital, Inverter, Buffer	CMOS	436	1186 SS	1500 Ohms	100E-12 F	15	8651	1 FAILED
											2500 INPUT TO OUTPUT
											5
											252
											3
CD4072BEX	RCA	1	Digital, Gate	CMOS	417	0385 SS	0 Ohms	200E-12 F	3	N/R	5 FAILED
											1800 N/R
											25
											252
											13
CD4072BEX	N/R	1	Digital, Gate	CMOS	416	0485 SS	1500 Ohms	100E-12 F	3	N/R	5 FAILED
											1800 N/R
											25
											252
											13
CD4072BEX	N/R	1	Digital, Gate	CMOS	416	0584 SS	1500 Ohms	100E-12 F	3	N/R	10 FAILED
											1800 N/R
											25
											252
											13
CD4081BEX	RCA	1	Digital, Gate	CMOS	416	0185 SS	1500 Ohms	100E-12 F	3	N/R	10 FAILED
											2000 N/R
											25
											252
											13

RAC ESD Database

Part Number CD40818EX	Part ESD		Part												Technology		
	Mfr	Class	Description												Failure Criteria	Test Remarks	General Remarks
	PLE	2	Digital, Gate														
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Number Pulses	Number Date	Number Code	Devices	Test Result	Test Voltage	Test Pin	Test Combination				
	393	1184	SS	1500 Ohms	100E-12 F	1	N/R	2	FAILED	2500	12(INPUT)	14(VDD)					
COP370	NSC	1	Digital, Line/Bus Driver														
	421	0184	SS	1500 Ohms	100E-12 F	6	N/R	1	FAILED	1200	N/R	102	252	13			
	422	0184	SS	0 Ohms	125E-12 F	1	N/R	1	FAILED	200	N/R	102	289	13			
COP409	NSC	1	Digital, Processing Unit, Central														
	421	0184	SS	1500 Ohms	100E-12 F	4	N/R	1	FAILED	800	N/R	102	252	13			
COP411	NSC	1	Digital, Processing Unit, Central														
	421	0184	SS	1500 Ohms	100E-12 F	5	N/R	1	FAILED	1000	N/R	102	252	13			
	422	0184	SS	0 Ohms	125E-12 F	1	N/R	1	FAILED	200	N/R	102	289	13			
COP420	NSC	1	Digital, Processing Unit, Central														
	421	0184	SS	1500 Ohms	100E-12 F	6	N/R	1	FAILED	1100	N/R	102	252	13			
COP420L	NSC	1	Digital, Processing Unit, Central														
	421	0184	SS	1500 Ohms	100E-12 F	5	N/R	1	FAILED	900	N/R	102	252	13			
COP420W	NSC	1	Digital, Processing Unit, Central														
	421	0184	SS	1500 Ohms	100E-12 F	5	N/R	1	FAILED	1000	N/R	102	252	13			

RAC ESD Database

Part Number	Part ESD		Part Description	Technology															
	Class			CMOS															
	Mfr			Test	Test Date	Test Type	Resistance	Capacitance	Pulses	Code	Number	Test Result	Test Voltage	Pin	Combination	Failure Criteria	Test Remarks	General Remarks	
COP420W	NSC	1	Digital, Processing Unit, Central	422	0184	SS	0	Ohms	125E-12	F	1	N/R	1	FAILED	100	N/R	102	289	13
				NSC 1 Digital, Processing Unit, Central															
				421	0184	SS	1500	Ohms	100E-12	F	4	N/R	1	FAILED	800	N/R	102	252	13
				NSC 1 Digital, Line/Bus Driver															
COP470	NSC	1	Digital, Processing Unit, Central	421	0184	SS	1500	Ohms	100E-12	F	6	N/R	1	FAILED	1100	N/R	102	252	13
				NSC 1 Digital, Processing Unit, Central															
				421	0184	SS	1500	Ohms	100E-12	F	2	N/R	1	FAILED	400	N/R	102	252	13
				422	0184	SS	0	Ohms	125E-12	F	1	N/R	1	FAILED	150	N/R	102	289	13
COP484	NSC	1	Digital, Processing Unit, Central	421	0184	SS	1500	Ohms	100E-12	F	3	N/R	1	FAILED	600	N/R	102	252	13
				NSC 1 Digital, Memory, RAM															
				421	0184	SS	1500	Ohms	100E-12	F	5	N/R	1	FAILED	1000	N/R	102	252	13
				NSC 1 Digital, Gate															
COP498	NSC	1	Digital, Processing Unit, Central	421	0184	SS	1500	Ohms	100E-12	F	9	N/R	1	FAILED	1800	N/R	102	252	13
				NSC 1 Digital, Gate															
				421	0184	SS	1500	Ohms	100E-12	F	9	N/R	1	FAILED	1800	N/R	102	252	13
				NSC 1 Digital, Gate															
COP920	NSC	1	Digital, Processing Unit, Central	421	0184	SS	1500	Ohms	100E-12	F	9	N/R	1	FAILED	1800	N/R	102	252	13
				NSC 1 Digital, Gate															
				421	0184	SS	1500	Ohms	100E-12	F	9	N/R	1	FAILED	1800	N/R	102	252	13
				NSC 1 Digital, Gate															
COP944	NSC	1	Digital, Processing Unit, Central	421	0184	SS	1500	Ohms	100E-12	F	9	N/R	1	FAILED	1700	N/R	102	252	13
				NSC 1 Digital, Gate															
				421	0184	SS	1500	Ohms	100E-12	F	9	N/R	1	FAILED	1700	N/R	102	252	13
				NSC 1 Digital, Gate															

RAC ESD Database

Part Number	Part ESD		Part		Description		Technology	
	Mfr	Class	CYP	2	Digital, Memory	MOS		
CY7C401	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Number Date	Test Result	Test Voltage
	Source	Date	Type	Resistance	Capacitance	Pulses	Code	Devices Pin Combination
CY7C403	436	1186	SS	1500 Ohms	100E-12 F	16	8701	2 FAILED 3000 GND TO OUTPUT
	436	1186	SS	1500 Ohms	100E-12 F	17	8637	1 FAILED 3500 INPUT TO GND
D2817A	429	N/R	GN	0 Ohms	50E-12 F	3	N/R	10 PASSED 600 N/R
	429	N/R	GN	0 Ohms	50E-12 F	3	N/R	10 PASSED 600 N/R
DAC-08	436	1186	SS	1500 Ohms	100E-12 F	14	N/R	1 FAILED 2000 INPUT TO GND
	436	1186	SS	1500 Ohms	100E-12 F	14	N/R	1 FAILED 2000 INPUT TO GND
DAC0830	421	0184	SS	1500 Ohms	100E-12 F	5	N/R	1 FAILED 900 PINS 17 AND 19
	421	0184	SS	1500 Ohms	100E-12 F	5	N/R	1 FAILED 900 PINS 17 AND 19
DAC10	437	1083	GN	1500 Ohms	100E-12 F	10	N/R	3 FAILED 2000 PINS 2 TO 4
	437	1083	GN	1500 Ohms	100E-12 F	10	N/R	3 FAILED 2000 PINS 5 TO 3
DAC1006	421	0184	SS	1500 Ohms	100E-12 F	3	N/R	1 FAILED 600 PIN 16
	421	0184	SS	1500 Ohms	100E-12 F	3	N/R	1 FAILED 600 PIN 16

RAC ESD Database

Part Number	Part ESD		Part Description	Technology												
	Mfr	Class		Test Date	Test Type	Resistance	Capacitance	Test Pulses	Number Date	Code Devices	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
DAC1230	NSC	1	Digital, Converter, A/D-D/A	421	0184	SS	1500 Ohms	100E-12 F	5	N/R	1	FAILED	1000 N/R	102	252	13
DG140	SIX	1	Linear, Switch	436	1186	SS	1500 Ohms	100E-12 F	10	N/R	1	FAILED	1200 GND TO OUTPUT	5	252	3
DG184	SIX	2	Linear, Switch	436	1186	SS	1500 Ohms	100E-12 F	17	8722	5	FAILED	3500 SOURCE TO GATE	5	252	3
DG184A	INT	1	Linear, Switch	436	1186	SS	1500 Ohms	100E-12 F	7	N/R	1	FAILED	800 VGS TO GND	5	252	3
DG184A	SIL	3	Linear, Switch	436	1186	SS	1500 Ohms	100E-12 F	18	N/R	5	PASSED	4000 N/R	5	252	3
DG187A	SIX	1	Linear, Switch	392	1086	SS	1500 Ohms	100E-12 F	1	N/R	5	FAILED	2000 EACH PIN TO 4 & 7 (+ -)	19	252	13
DG201	SIX	1	Linear, Switch	436	1186	SS	1500 Ohms	100E-12 F	5	N/R	5	FAILED	600 INPUT TO COMMON AND OUTPUT	5	252	3
	436	1186	SS	1500 Ohms	100E-12 F	6	N/R	5	FAILED	700 INPUT TO GND	5	252	3			

RAC ESD Database

Part Number	Part ESD		Part Description		Technology													
	Mfr	Class	Test	Test	Resistance	Capacitance	Test	Number	Date	Devices	Test	Voltage	Pin	Combination	Failure Criteria	Test Remarks	General Remarks	
DG201	SIX	1	Linear, Switch															
	436	1186 SS	1500 Ohms	100E-12 F	18	N/R	5	PASSED	4000	N/R					5	252	3	
	436	1186 SS	1500 Ohms	100E-12 F	5	N/R	1	FAILED	600	INPUT TO OUTPUT					5	252	3	
	436	1186 SS	1500 Ohms	100E-12 F	6	N/R	5	FAILED	700	INPUT TO GND					5	252	3	
DG201	SIL	1	Linear, Switch															
	436	1186 SS	1500 Ohms	100E-12 F	5	N/R	5	FAILED	600	INPUT TO V(-)					5	252	3	
DG201	N/R	1	Linear, Switch															
	030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	1100	N/R				103	252	13	
DG403	SIX	1	Linear, Switch															
	436	1186 SS	1500 Ohms	100E-12 F	6	8548	2	FAILED	700	INPUT TO GND					5	252	3	
DLZ-5	GEN	3	Linear, Voltage Regulator															
	412	1286 SS	1500 Ohms	100E-12 F	15	N/R	5	PASSED	15000	PIN 1 (GND) +/-					20	252	13	
DM28C256	SEO	2	Digital, Memory, PROM															
	436	1186 SS	1500 Ohms	100E-12 F	16	N/R	1	FAILED	3000	INPUT TO OUTPUT					5	252	3	
DM74ALS00	NSC	1	Digital, Gate															
	421	0184 SS	1500 Ohms	100E-12 F	10	N/R	1	FAILED	2000	INPUTS					102	252	13	
																Advanced LSTTL		

RAC ESD Database

Part Number	Part ESD		Part Description		Technology	
	Mfr	Class	Test	Test	Advanced LS TTL	General
DM74ALS138	NSC	2	Digital, Decoder	Test	Test	Test
				Source Date	Resistance	Capacitance
				421 0184 SS	1500 Ohms	100E-12 F
				16 N/R	1 FAILED	3200 N/R
				1 FAILED	3200 N/R	13
Advanced LS TTL						
DM74ALS14	NSC	2	Digital, Inverter, Buffer	Test	Test	Test
				421 0184 SS	1500 Ohms	100E-12 F
				18 N/R	1 FAILED	3500 N/R
				1 FAILED	3500 N/R	13
Advanced LS TTL						
DM74ALS157	NSC	2	Digital, Multiplexer	Test	Test	Test
				421 0184 SS	1500 Ohms	100E-12 F
				15 N/R	1 FAILED	3000 N/R
				1 FAILED	3000 N/R	13
Advanced LS TTL						
DM74ALS245	NSC	2	Digital, Transceiver	Test	Test	Test
				421 0184 SS	1500 Ohms	100E-12 F
				18 N/R	1 FAILED	3500 N/R
				1 FAILED	3500 N/R	13
Advanced LS TTL						
DM74ALS258	NSC	2	Digital, Multiplexer	Test	Test	Test
				421 0184 SS	1500 Ohms	100E-12 F
				15 N/R	1 FAILED	3000 N/R
				1 FAILED	3000 N/R	13
Advanced LS TTL						
DM74ALS373	NSC	3	Digital, Latch	Test	Test	Test
				421 0184 SS	1500 Ohms	100E-12 F
				25 N/R	1 FAILED	5000 N/R
				1 FAILED	5000 N/R	13
Advanced LS TTL						
DM74ALS541	NSC	2	Digital, Line/Bus Driver	Test	Test	Test
				421 0184 SS	1500 Ohms	100E-12 F
				13 N/R	1 FAILED	2500 N/R
				1 FAILED	2500 N/R	13
Advanced LS TTL						
DM74AS174	NSC	2	Digital, Flip-Flop	Test	Test	Test
				421 0184 SS	1500 Ohms	100E-12 F
				18 N/R	1 FAILED	3500 N/R
				1 FAILED	3500 N/R	13
Advanced STTL						

RAC ESD Database

Part Number	Part ESD		Part Description	Technology/	
	Mfr	Class		Advanced	STTL
DM74AS282	NSC	2	Digital		
	Test Source	Test Date	Test Type	Resistance	Capacitance
	421	0184	SS	1500 Ohms	100E-12 F
				18 N/R	18 N/R
				1 FAILED	3500 N/R
				102	252
				102	252
				13	13
DM74AS640	NSC	3	Digital, Transceiver	Advanced STTL	
	421	0184	SS	1500 Ohms	100E-12 F
				25 N/R	25 N/R
				1 FAILED	5000 N/R
				102	252
				102	252
				13	13
DM74LS00	NSC	1	Digital, Gate	LSTTL	
	421	0184	SS	1500 Ohms	100E-12 F
				6 N/R	6 N/R
				1 FAILED	1200 N/R
				102	252
				102	252
				13	13
DM74S195	NSC	1	Digital, Register, Shift	STTL	
	421	0184	SS	1500 Ohms	100E-12 F
				5 N/R	5 N/R
				1 FAILED	900 N/R
				102	252
				102	252
				13	13
DM8820AJ	NSC	1	Digital, Line/Bus Receiver	Bipolar	
	029	N/R	N/R	1500 Ohms	100E-12 F
				1 N/R	1 N/R
				1 FAILED	1707 N/R
				102	188
				102	188
				13	13
DM933N	NSC	3	Digital, Timer, Programmable Interval	DTL	
	029	N/R	N/R	1500 Ohms	100E-12 F
				1 N/R	1 N/R
				1 FAILED	6748 N/R
				102	188
				102	188
				13	13
DMPAL16L8ANC	NSC	1	Digital, Array, PAL	Bipolar	
	421	0184	SS	1500 Ohms	100E-12 F
				8 N/R	8 N/R
				1 FAILED	1600 N/R
				102	252
				102	252
				13	13
DMPAL16L8B2	NSC	2	Digital, Array, PAL	Bipolar	
	421	0184	SS	1500 Ohms	100E-12 F
				10 N/R	10 N/R
				1 PASSED	2000 N/R
				102	252
				102	252
				13	13

RAC ESD Database

Part Number	Part ESD		Part Description	Technology	
	Mfr	Class		Failure Criteria	Test Remarks
CP8340	NSC	1	Digital, Encoder	Bipolar	13
Test Test Test Test Test Test					
Source Date Type Resistance Capacitance Number Date Number Test Test					
421 0184 SS 1500 Ohms 100E-12 F 10 N/R 10 N/R 1 FAILED 2000 N/R					
DP8341	NSC	1	Digital, Decoder	Bipolar	13
421	0184	SS	1500 Ohms 100E-12 F	10 N/R	7 N/R
1 FAILED	1400	N/R			
DP8648N	NSC	1	Digital, Controller, Fixed Disk Pulse Det	MOS	13
421	0184	SS	1500 Ohms 100E-12 F	2 N/R	1 FAILED
350 PINS 2,3 AND 10					
DP8466	NSC	1	Digital, Controller, Disk Drive Data	MOS	13
421	0184	SS	1500 Ohms 100E-12 F	8 N/R	1 FAILED
1000 N/R					
DS3896	NSC	1	Digital, Line/Bus Driver	Bipolar	13
421	0184	SS	1500 Ohms 100E-12 F	10 N/R	1 FAILED
2000 N/R					
DS3897	NSC	1	Digital, Transceiver	Bipolar	13
421	0184	SS	1500 Ohms 100E-12 F	10 N/R	1 FAILED
2000 N/R					
DS8908	NSC	1	Linear, Phase Lock Loop	Bipolar	13
421	0184	SS	1500 Ohms 100E-12 F	2 N/R	1 FAILED
400 N/R					
DS9221	NSC	2	Digital, Line/Bus Receiver	Bipolar	13
421	0184	SS	1500 Ohms 100E-12 F	13 N/R	1 FAILED
2500 PIN 8					

RAC ESD Database

Part Number	Part	Part ESD		Part Description	Technology																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		Mfr	Class		Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test

RAC ESD Database

Part Number	Part Description	Part ESD Class	Test	Test Date	Test Type	Resistance	Capacitance	Pulses	Number	Date	Code	Devices	Test Result	Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks	
H1528A-B	Digital, Multiplexer	1	1186 SS	1500 Ohms	100E-12 F	4	8616	1	FAILED	500	INPUT TO GND	5	252	3					
	Digital, Converter, A/D-D/A															CMOS			
	Digital, Multiplexer, BUS																5	252	3
	Digital, Multiplexer, BUS															CMOS			
	Digital, Memory, RAM, Static	1	0787 SS	1500 Ohms	100E-12 F	6	N/R	2	FAILED	700	INPUT TO OUTPUT	5	252	3					
	Digital, Memory, RAM, Static	1	1196 SS	1500 Ohms	100E-12 F	6	N/R	2	FAILED	700	INPUT TO OUTPUT	5	252	3					
IDL6116	Digital, Memory, RAM, Static	1	1186 SS	1500 Ohms	100E-12 F	6	8548	1	FAILED	700	INPUT TO GND	5	252	3					
IDL7201500B	Digital, Memory	1	1186 SS	1500 Ohms	100E-12 F	7	N/R	1	FAILED	800	INPUT TO GND	5	252	3					
IDL6116	Digital, Memory, RAM, Static	1	0788 SS	1500 Ohms	100E-12 F	7	8745	1	FAILED	800	INPUT TO OUTPUT	5	252	3					
	Digital, Memory, RAM, Static	1	0788 SS	1500 Ohms	100E-12 F	5	8745	1	FAILED	600	INPUT TO GROUND	5	252	3					
	Digital, Memory, RAM, Static	1	0788 SS	1500 Ohms	100E-12 F	7	8745	1	FAILED	800	INPUT TO GROUND	5	252	3					
	Digital, Memory, RAM, Static	1	0788 SS	1500 Ohms	100E-12 F	5	8745	1	FAILED	600	INPUT TO GROUND	5	252	3					

RAC ESD Database

Part Number	(Cont'd)	Part ESD		Part Description	Technology						
		Mfr Class	Class		Failure Criteria	Test Remarks	General Remarks	CMOS			
1D5116											
1 Digital, Memory, RAM, Static											
Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Number Pulses	Date Code	Number Devices	Test Result	Test Voltage	Pin Combination	
436	0788	SS	1500 Ohms	100E-12 F	7	8745	1	FAILED	300	OUTPUT TO GROUND	3
436	0788	SS	1500 Ohms	100E-12 F	5	8745	1	FAILED	600	INPUT TO GROUND	3
							1	FAILED	600	INPUT TO GROUND	3
							1	FAILED	600	INPUT TO GROUND	3
							1	FAILED	600	INPUT TO GROUND	3
436	0788	SS	1500 Ohms	100E-12 F	7	8745	1	FAILED	800	INPUT TO OUTPUT	3
436	0788	SS	1500 Ohms	100E-12 F	5	8745	1	FAILED	600	INPUT TO GROUND	3
436	0788	SS	1500 Ohms	100E-12 F	9	8745	1	FAILED	1000	INPUT TO GROUND	3
1H5216											
1 Digital, Multiplexer											
436	1186	SS	1500 Ohms	100E-12 F	1	8625	1	FAILED	200	INPUT TO OUTPUT	3
							1	FAILED	200	INPUT TO OUTPUT	3
1M5-1203											
1 Digital, Memory, RAM, Static											
425	0487	SS	1500 Ohms	100E-12 F	110	N/R	3	FAILED	1250	PINS 5 AND 17	17
1M5-1223											
2 Digital, Memory, RAM, Static											
425	0487	SS	1500 Ohms	100E-12 F	220	N/R	3	FAILED	4000	PIN 7	17
1M5-1400											
1 Digital, Memory, RAM, Static											
425	0887	SS	1500 Ohms	100E-12 F	110	N/R	3	FAILED	1100	PINS 1 AND 3	17

RAC ESD Database

Part Number (Cont'd)	Part ESD Mfr Class	Part Description	Technology																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
			NMOS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
IMS-1400	INM	1	Digital, Memory, RAM, Static	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test

RAC ESD Database

Part Number	Part ESD		Part		Description		Technology	
	Mfr	Class	Test	Test	Test	Test	Failure Criteria	General Remarks
IMS-1624	INM	1	Digital, Memory, RAM, Static	110 N/R	100E-12 F	1500 Ohms	100E-12 F	17
	INM	1	Digital, Memory, RAM, Static	110 N/R	100E-12 F	1500 Ohms	100E-12 F	17
IMS-1625	INM	1	Digital, Memory, RAM, Static	100 N/R	100E-12 F	1500 Ohms	100E-12 F	17
IMS-1630	INM	1	Digital, Memory, RAM, Static	100 N/R	100E-12 F	1500 Ohms	100E-12 F	17
IMS-1800	INM	1	Digital, Memory, RAM, Static	120 N/R	100E-12 F	1500 Ohms	100E-12 F	17
IMS-2600	INM	2	Digital, Memory, RAM, Dynamic	180 N/R	100E-12 F	1500 Ohms	100E-12 F	17
IMS-A100	INM	1	Digital					
IMS-C004	INM	1	Digital					

RAC ESD Database

Part Number		Lot #		Part		Mfr Class		Description		Technology	
IMS-C011		1		Digital						CMOS	
Test		Test		Test		Test		Test		Test	
Source		Date		Type		Resistance		Capacitance		Number	
425		0887		SS		1500 Ohms		100E-12 F		110 N/R	
425		0887		SS		1500 Ohms		100E-12 F		120 N/R	
425		0887		SS		1500 Ohms		100E-12 F		220 N/R	
IMS-C012		INM		1		Digital				MOS	
425		0887		SS		1500 Ohms		100E-12 F		110 N/R	
425		0887		SS		1500 Ohms		100E-12 F		120 N/R	
425		0887		SS		1500 Ohms		100E-12 F		220 N/R	
IMS-G171		INM		2		Digital				CMOS	
425		0188		SS		1500 Ohms		100E-12 F		150 N/R	
IMS-T800		INM		3		Digital, Processing Unit, Central				NMOS	
425		0287		SS		1500 Ohms		100E-12 F		220 N/R	
IMS8050		NSC		1		Digital, Processing Unit, Central				MOS	
421		0184		SS		1500 Ohms		100E-12 F		10 N/R	
IMS82C50		NSC		1		Digital, Processing Unit, Central				CMOS	
421		0184		SS		1500 Ohms		100E-12 F		8 N/R	

RAC ESD Database

Part Number	Part ESD		Part		Technology	
	Mfr	Class	Description			
LF11202	NSC	1	Linear, Switch		FET	
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Voltage
	436	1186	SS	1500 Ohms	100E-12 F	4000 N/R
	436	1186	SS	1500 Ohms	100E-12 F	1400 INPUT TO OUTPUT
LF11202D	NSC	2	Linear, Switch		FET	
	436	1186	SS	1500 Ohms	100E-12 F	16 N/R
	436	1186	SS	1500 Ohms	100E-12 F	15 N/R
	436	1186	SS	1500 Ohms	100E-12 F	16 N/R
LF155	LTC	1	Linear, Operational Amplifier		BIFET	
	438	0587	GN	1500 Ohms	100E-12 F	10 N/R
	438	0587	GN	1500 Ohms	100E-12 F	10 N/R
	438	0587	GN	1500 Ohms	100E-12 F	10 N/R
LF155A	LTC	1	Linear, Operational Amplifier		BIFET	
	438	0587	GN	1500 Ohms	100E-12 F	10 N/R
	438	0587	GN	1500 Ohms	100E-12 F	10 N/R
	438	0587	GN	1500 Ohms	100E-12 F	10 N/R
LF156	LTC	N	Linear, Operational Amplifier		BIFET	
	245	N/R	SS	100 Ohms	N/R	1 N/R
	436	1186	SS	1500 Ohms	100E-12 F	18 N/R
	436	1186	SS	1500 Ohms	100E-12 F	18 N/R
LF156A	LTC	1	Linear, Operational Amplifier		BIFET	
	438	1185	GN	1500 Ohms	100E-12 F	10 N/R
	438	1185	GN	1500 Ohms	100E-12 F	10 N/R
	438	1185	GN	1500 Ohms	100E-12 F	10 N/R

RAC ESD Database

Part Number	Part ESD		Part												Technology				
	Mfr	Class	Description												Failure Criteria	Test Remarks	General Remarks		
LF157	N/R	3	Linear, Operational Amplifier		Test	Test	Test	Number	Test	Test	Test	Test	Test	Test	Test	Test			
					Source	Date	Type	Resistance	Capacitance	Pulses	Code	Devices	Result	Voltage	Pin	Combination			
					030	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	FAILED	6000	N/R	103	252	13	
LF198	NSC	2	Linear, Operational Amplifier, Sample and Hold													BIFET	102	252	13
					421	0184	SS	1500 Ohms	100E-12 F	15	N/R	1	FAILED	3000	PIN 8				
LF198A	LTC	1	Linear, Operational Amplifier, Sample and Hold													BIFET	5	252	3
					436	1186	SS	1500 Ohms	100E-12 F	7	N/R	1	FAILED	800	N/R				
LF198AH	LTC	1	Linear, Operational Amplifier, Sample and Hold													Bipolar	55	252	13
					438	0285	GN	1500 Ohms	100E-12 F	10	N/R	5	FAILED	2000	IN TO V(-), CH TO V(-)				
LF298	NSC	2	Linear, Operational Amplifier, Sample and Hold													BIFET	102	252	13
					421	0184	SS	1500 Ohms	100E-12 F	20	N/R	1	FAILED	4000	PIN 8				
LF353	NSC	1	Linear, Operational Amplifier													JFET	102	252	13
					421	0184	SS	1500 Ohms	100E-12 F	7	8424	1	FAILED	1400	PINS 2,3,5, AND 6				
LF356	N/R	1	Linear													JFET	102	252	13
					421	0184	SS	1500 Ohms	100E-12 F	6	N/R	1	FAILED	1200	PINS 2 AND 3				
LF357	NSC	1	Linear													JFET	102	252	13
					421	0184	SS	1500 Ohms	100E-12 F	6	N/R	1	FAILED	1200	PINS 2 AND 3				

RAC ESD Database

Part Number	Part	Part ESD		Part Description	Linear, Operational Amplifier, Sample and Hold										Technology			
		Mfr	Class		Test Date	Test Type	Resistance	Capacitance	Pulses	Number	Date	Devices	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
LF398		NSC	2	Linear, Operational Amplifier, Sample and Hold	421	0184	SS	1500 Ohms	100E-12 F	20	8512	1	FAILED	4000	PIN 8	102	252	13
					421	0184	SS	1500 Ohms	100E-12 F	4	N/R	1	FAILED	800	PINS 2,3,5, AND 6	102	252	13
					421	0184	SS	1500 Ohms	100E-12 F	3	8416	1	FAILED	600	PINS 2 AND 3	102	252	13
LF442		NSC	1	Linear, Operational Amplifier	421	0184	SS	1500 Ohms	100E-12 F	5	8440	1	FAILED	1000	PINS 2,3,5, AND 6	102	252	13
					392	1186	SS	1500 Ohms	100E-12 F	1	N/R	5	FAILED	650	EACH PIN TESTED TO 10 & 12	19	145	13
LH0033		DCC	1	Digital, Multivibrator	438	0285	GN	1500 Ohms	100E-12 F	10	N/R	15	PASSED	2000	N/R	55	252	13
					392	0986	SS	1500 Ohms	100E-12 F	1	N/R	5	FAILED	2000	EACH PIN TO 1,6 & 9 (+ -)	19	252	13
LH2108A		LTC	2	Linear, Operational Amplifier	438	1185	GN	1500 Ohms	100E-12 F	10	N/R	15	PASSED	2000	N/R	55	252	13
					438	1185	GN	1500 Ohms	100E-12 F	10	N/R	15	PASSED	2000	N/R	55	252	13

RAC ESD Database

Part Number	Part ESD		Part Description	Technology												
	Mfr	Class		Bipolar												
LH2108AD	LTC	2	Linear, Operational Amplifier													
	Test Source	Test Date	Test Type	Resistance	Capacitance	Test Pulses	Number Devices	Date Code	Test Result	Test Voltage	Test Pin Combination	Failure Criteria	Test Remarks	General Remarks		
	438	0385	GN	1500 Ohms	100E-12 F	10	N/R	10	N/R	15	PASSED	2000	N/R	55	252	13
LM101A	FSC	1	Linear, Operational Amplifier	Bipolar												
	436	1186	SS	1500 Ohms	100E-12 F	14	N/R	14	N/R	5	FAILED	2000	INPUT	5	252	3
	436	1186	SS	1500 Ohms	100E-12 F	18	N/R	18	N/R	5	PASSED	4000	N/R	5	252	3
	436	1186	SS	1500 Ohms	100E-12 F	14	N/R	14	N/R	5	FAILED	2000	OUTPUT TO GND	5	252	3
	436	1186	SS	1500 Ohms	100E-12 F	15	N/R	15	N/R	5	FAILED	2500	INPUT TO OUTPUT	5	252	3
	436	1186	SS	1500 Ohms	100E-12 F	18	N/R	18	N/R	5	PASSED	4000	N/R	5	252	3
	436	1186	SS	1500 Ohms	100E-12 F	18	N/R	18	N/R	5	PASSED	4000	N/R	5	252	3
LM101A	NSC	3	Linear, Operational Amplifier	Bipolar												
	436	0788	SS	1500 Ohms	100E-12 F	18	N/R	18	N/R	5	PASSED	4000	N/R	5	252	3
	436	0588	SS	1500 Ohms	100E-12 F	18	N/R	18	N/R	5	PASSED	4000	N/R	5	252	3
	436	1186	SS	1500 Ohms	100E-12 F	18	N/R	18	N/R	3	PASSED	4000	N/R	5	252	3
LM101AH	LTC	1	Linear, Operational Amplifier	Bipolar												
	438	0385	GN	1500 Ohms	100E-12 F	10	N/R	10	N/R	9	FAILED	2000	IN TO V(-), IN TO OUT	55	252	13
LM103	NSC	3	Linear, Voltage Regulator	Bipolar												
	029	N/R	N/R	1500 Ohms	100E-12 F	1	N/R	1	N/R	1	FAILED	6152	N/R	102	188	13

RAC ESD Database

Part Number	(Cont'd)	Part ESD		Part Description	Technology
		Mfr	Class		
LM103		NSC	3	Linear, Voltage Regulator	Bipolar
		Test Date	Test Type	Test Resistance	Failure Criteria
		029	N/R	1500 Ohms	102
				100E-12 F	188
LM105H		NSC	2	Linear, Voltage Regulator	Bipolar
		436	1186 SS	1500 Ohms	5
				100E-12 F	252
				16 8707	3
LM108		NSC	1	Linear, Operational Amplifier	Bipolar
		421	0184 SS	1500 Ohms	102
				100E-12 F	252
				10 N/R	13
LM108		LTC	3	Linear, Operational Amplifier	Bipolar
		436	1186 SS	1500 Ohms	5
				100E-12 F	252
				18 N/R	3
LM108		FSC	2	Linear, Operational Amplifier	Bipolar
		436	1186 SS	1500 Ohms	5
				100E-12 F	252
				16 N/R	3
LM108A		FSC	2	Linear, Operational Amplifier	Bipolar
		436	0788 SS	1500 Ohms	5
				100E-12 F	252
				18 N/R	3
LM108A		FSC	2	Linear, Operational Amplifier	Bipolar
		436	1186 SS	1500 Ohms	5
				100E-12 F	205
				15 N/R	3
LM108A		FSC	2	Linear, Operational Amplifier	Bipolar
		436	1186 SS	1500 Ohms	5
				100E-12 F	252
				16 N/R	3
LM108A		FSC	2	Linear, Operational Amplifier	Bipolar
		436	1186 SS	1500 Ohms	5
				100E-12 F	252
				18 N/R	3

RAC ESD Database

Part Number	Part	Part ESD		Description	Technology																						
		Mfr	Class		Bipolar																						
LM108A		FSC	2	Linear, Operational Amplifier																							
LM108A	NSC	436	1186	SS	1500 Ohms	100E-12 F	16 N/R	Number	Date	Pulses	Code	Devises	Test	Result	Voltage	P/n	Combination	Failure Criteria	Test Remarks	General Remarks							
																					1	FAILED	3000	INPUT TO INPUT	5	252	3
																					1	PASSED	4000	N/R	5	252	3
																					5	PASSED	4000	N/R	5	252	3
																					1	FAILED	3000	INPUT TO INPUT	5	252	3
																					5	FAILED	3000	INPUT TO GND	5	252	3
LM108A	LTC	436	1186	SS	1500 Ohms	100E-12 F	18 N/R	4	PASSED	4000	N/R	5	252	3													
															1	FAILED	4000	INPUT TO INPUT	5	252	3						
															1	FAILED	4000	INPUT TO COMMON	5	252	3						
															5	PASSED	4000	N/R	5	252	3						
															9	PASSED	4000	N/R	5	252	3						
															Bipolar												
LM108H	LTC	1	Linear, Operational Amplifier																								
			Bipolar																								
LM11	NSC	438	0285	GN	1500 Ohms	100E-12 F	10 N/R	3	FAILED	2000	REF. F/B TO REF. OUT	55	252	13													
															Bipolar												
LM110H	NSC	436	1186	SS	1500 Ohms	100E-12 F	10 8420	1	FAILED	2000	PINS 1 AND 8	102	252	13													
															Bipolar												
LM110H	NSC	436	1186	SS	1500 Ohms	100E-12 F	18 N/R	1	PASSED	4000	N/R	5	252	3													
															Bipolar												
LM110H	NSC	436	1186	SS	1500 Ohms	100E-12 F	18 N/R	5	PASSED	4000	N/R	5	252	3													
															Bipolar												

RAC ESD Database

Part Number	(Cont'd)	Part ESD		Part Description	Technology					
		Mfr	Class			Test	Test Date	Test Type	Resistance	Capacitance
LM110H		NSC	3	Linear, Voltage Follower	Bipolar	Test	Test Date	Test Type	Resistance	Capacitance
						Source	436	1186	SS	1500 Ohms
						Test				
						Result	5	PASSED	4000 N/R	4000 N/R
						Pin Combination				
						Failure Criteria	5	252		3
						General Remarks				
LM111		FSC	1	Linear, Comparator	Bipolar	Test				
						Source	436	1186	SS	1500 Ohms
						Test				
						Result	2	PASSED	4000 N/R	4000 N/R
						Pin Combination				
						Failure Criteria	5	252		3
						General Remarks				
LM111		NSC	1	Linear, Comparator	Bipolar	Test				
						Source	436	1186	SS	1500 Ohms
						Test				
						Result	2	PASSED	4000 N/R	4000 N/R
						Pin Combination				
						Failure Criteria	5	252		3
						General Remarks				
LM111		RAY	3	Linear, Comparator	Bipolar	Test				
						Source	436	0588	SS	1500 Ohms
						Test				
						Result	2	PASSED	4000 N/R	4000 N/R
						Pin Combination				
						Failure Criteria	5	252		3
						General Remarks				
LM111		N/R	3	Linear, Comparator	Bipolar	Test				
						Source	030	N/R	N/R	1500 Ohms
						Test				
						Result	1	FAILED	11000 N/R	11000 N/R
						Pin Combination				
						Failure Criteria	103	252		13
						General Remarks				
LM117		NSC	2	Linear, Voltage Regulator	Bipolar	Test				
						Source	421	0184	SS	1500 Ohms
						Test				
						Result	1	FAILED	3000 N/R	3000 N/R
						Pin Combination				
						Failure Criteria	102	252		13
						General Remarks				

RAC ESD Database

Part Number	Part ESD		Part Description	Technology										
	Mfr	Class			Test	Test	Test	Test	Test	Test	Test	Test	Test	Test
LM117H	NSC	1	Linear, Voltage Regulator	Bipolar	Source	Date	Type	Resistance	Capacitance	Pulses	Code	Devices	Number	General
					436	1186	SS	1500 Ohms	100E-12 F	13	N/R	1	1	252
LM117H	LTC	1	Linear, Voltage Regulator	Bipolar										
					436	1186	SS	1500 Ohms	100E-12 F	14	N/R	1	1	252
					438	0986	GN	1500 Ohms	100E-12 F	10	N/R	9	9	252
LM117K	LTC	1	Linear, Voltage Regulator	Bipolar										
					438	1286	GN	1500 Ohms	100E-12 F	10	N/R	8	8	252
LM118	NSC	1	Linear, Operational Amplifier	Bipolar										
					414	0883	SS	1500 Ohms	100E-12 F	5	N/R	25	25	259
												16	16	259
												16	16	260
LM118	LTC	1	Linear, Operational Amplifier	Bipolar										
					421	0184	SS	1500 Ohms	100E-12 F	11	N/R	1	1	252
					436	1186	SS	1500 Ohms	100E-12 F	18	N/R	1	1	252
LM118	LTC	1	Linear, Operational Amplifier	Bipolar										
												5	5	252
												5	5	252
LM118	LTC	1	Linear, Operational Amplifier	Bipolar										
					436	1186	SS	1500 Ohms	100E-12 F	15	N/R	5	5	252
LM118	LTC	1	Linear, Operational Amplifier	Bipolar										
					436	1186	SS	1500 Ohms	100E-12 F	1	N/R	5	5	252

RAC ESD Database

Part Number	Part ESD		Part		Technology	
	Mfr	Class	Description			
LM119H	LTC	3	Linear, Comparator		Bipolar	
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses
	436	1186	SS	1500 Ohms	100E-12 F	18 N/R
						1 PASSED
						4000 N/R
						4000 N/R
						5 252
						3
LM120H	FSC	3	Linear, Voltage Regulator		Bipolar	
	436	1186	SS	1500 Ohms	100E-12 F	18 8447
						1 PASSED
						4000 N/R
						4000 N/R
						5 252
						3
LM120H-12	FSC	2	Linear, Voltage Regulator		Bipolar	
	390	N/R	GN	1500 Ohms	100E-12 F	5 N/R
						1 PASSED
						2000 S/R
						105 247
						11
LM120H-15	FSC	2	Linear, Voltage Regulator		Bipolar	
	390	N/R	GN	1500 Ohms	100E-12 F	5 N/R
						1 PASSED
						2000 S/R
						105 247
						11
LM120K-05	FSC	2	Linear, Voltage Regulator		Bipolar	
	390	N/R	GN	1500 Ohms	100E-12 F	5 N/R
						1 PASSED
						2000 S/R
						105 247
						11
LM120K-12	FSC	2	Linear, Voltage Regulator		Bipolar	
	390	N/R	GN	1500 Ohms	100E-12 F	5 N/R
						1 PASSED
						2000 S/R
						105 247
						11
LM1211	NSC	1	Linear		Bipolar	
	421	0184	SS	1500 Ohms	100E-12 F	6 N/R
						1 FAILED
						1200 PINS 9 AND 10
						102 252
						13
LM123K	LTC	2	Linear, Operational Amplifier		Bipolar	
	438	0285	GN	1500 Ohms	100E-12 F	10 N/R
						15 PASSED
						2000 N/R
						55 252
						13

RAC ESD Database

Part Number	Part ESD		Part		Description		Technology	
	Mfr	Class	FSC	1	Linear, Operational Amplifier		Bipolar	
LM124	Test		Test		Test		Test	
	Source	Date	Type	Resistance	Capacitance	Pulses	Code	Number
436	1186	SS	1500 Ohms	100E-12 F	7	8620	5	FAILED
436	1186	SS	1500 Ohms	100E-12 F	4	8620	5	FAILED
LM129AH	LTC		2		Linear, Voltage Regulator		Bipolar	
	0285	GN	1500 Ohms	100E-12 F	10	N/R	15	PASSED
LM134H	LTC		2		Linear		Bipolar	
	0285	GN	1500 Ohms	100E-12 F	10	N/R	15	PASSED
LM137H	LTC		2		Linear, Voltage Regulator		Bipolar	
	0587	GN	1500 Ohms	100E-12 F	10	N/R	15	PASSED
LM137K	LTC		1		Linear, Voltage Regulator		Bipolar	
	0587	GN	1500 Ohms	100E-12 F	10	N/R	5	FAILED
LM139	RAY		1		Linear, Comparator		Bipolar	
	1186	SS	1500 Ohms	100E-12 F	14	N/R	1	FAILED
LM139	FSC		1		Linear, Comparator		Bipolar	
	0788	SS	1500 Ohms	100E-12 F	18	N/R	5	PASSED

RAC ESD Database

Part Number	Part	Part ESD		Part Description	Technology															
		Mfr	Class		Test Date	Test Type	Resistance	Cap. Impedance	Test	Number	Date	Code	Pulses	Test Voltage	Pin Combination	Test Result	Failure Criteria	Test Remarks	General Remarks	
LM139		FSC	1	Linear, Comparator	436	1186	SS	1500 Ohms	100E-12 F		10	N/R	1	FAILED	1200	INPUT TO GND	5	252	3	
LM139A		NSC	1	Linear, Comparator	436	1186	SS	1500 Ohms	100E-12 F		6	8712	5	FAILED	700	INPUT TO COMMON	5	254	3	
					436	1186	SS	1500 Ohms	100E-12 F		7	8712	5	FAILED	800	INPUT TO COMMON	5	98	3	
LM140H		FSC	3	Linear, Voltage Regulator	436	1186	SS	1500 Ohms	100E-12 F		18	8632	1	PASSED	4000	N/R	5	252	3	
LM140H-05		FSC	3	Linear, Voltage Regulator	436	0788	SS	1500 Ohms	100E-12 F		18	N/R	1	PASSED	4000	N/R	5	252	3	
LM140H-05		N/R	3	Linear, Voltage Regulator																
		N/R	N/R	Linear, Voltage Regulator	030	N/R	N/R	1500 Ohms	100E-12 F		1	N/R	1	FAILED	10000	N/R	103	252	13	
LM140K-05		FSC	2	Linear, Voltage Regulator	390	N/R	GN	1500 Ohms	100E-12 F		5	N/R	1	PASSED	2000	S/R	105	247	11	
LM140K-05		N/R	3	Linear, Voltage Regulator																
		N/R	N/R	Linear, Voltage Regulator	030	N/R	N/R	1500 Ohms	100E-12 F		1	N/R	1	FAILED	10000	N/R	103	252	13	

RAC ESD Database

Part Number	Part ESD		Part Description	Technology			
	Mfr	Class		Failure Criteria	Test Remarks	General Remarks	
LM140K-12	FSC	2	Linear, Voltage Regulator	105	247	11	Bipolar
LM140K-12	N/R	3	Linear, Voltage Regulator	103	252	13	Bipolar
030	N/R	N/R	1500 Ohms 100E-12 F	1	FAILED	10000 N/R	
LM140K-15	N/R	3	Linear, Voltage Regulator	103	252	13	Bipolar
030	N/R	N/R	1500 Ohms 100E-12 F	1	FAILED	10000 N/R	
LM140K-24	FSC	2	Linear, Voltage Regulator	105	247	11	Bipolar
390	N/R	GN	1500 Ohms 100E-12 F	5	N/R	1	PASSED
LM140K-24	N/R	3	Linear, Voltage Regulator	103	252	13	Bipolar
030	N/R	N/R	1500 Ohms 100E-12 F	1	FAILED	10000 N/R	
LM148	FSC	1	Linear, Operational Amplifier	103	252	13	Bipolar
436	1186 SS	1500 Ohms 100E-12 F	13	N/R	1	FAILED	1800 INPUT TO INPUT
436	1186 SS	1500 Ohms 100E-12 F	18	N/R	1	PASSED	4000 N/R
LM1822	NSC	1	Linear	102	252	13	Bipolar
421	0184 SS	1500 Ohms 100E-12 F	2	N/R	1	FAILED	400 PIN 12

RAC ESD Database

[illegible]

RAC ESD Database

Part Number	Part ESD Part		Mfr Class	Description	Technology										
						Test	Test Test Test	Test	Test	Test	Test	Test	Test	Test	Test
LM199A	LTC	2		Linear, Comparator	Bipolar										
						Source	Test	Test	Test	Test	Test	Test	Test	Test	Test
LM199H	NSC	3		Linear, Voltage Regulator	Bipolar										
						438	0395	GV	1500	Ohms	100E-12	F	10	N/R	13
LM285	NSC	1		Linear, Voltage Reference	Bipolar										
						421	0184	SS	1500	Ohms	100E-12	F	10	N/R	13
LM2889	NSC	1		Linear	Bipolar										
						421	0184	SS	1500	Ohms	100E-12	F	3	N/R	13
LM2900	NSC	1		Linear, Operational Amplifier	Bipolar										
						421	0184	SS	1500	Ohms	100E-12	F	10	N/R	13
LM2930	NSC	3		Linear, Voltage Regulator	Bipolar										
						421	0184	SS	1500	Ohms	100E-12	F	40	8421	13
LM2931	NSC	2		Linear, Voltage Regulator	Bipolar										
						421	0184	SS	1500	Ohms	100E-12	F	18	N/R	13

RAC ESD Database

Part Number	Part ESD		Part		Description		Technology	
	Mfr	Class	Test	Test	Test	Test	Failure Criteria	General Remarks
LM2935	NSC	1	Linear, Voltage Regulator	Test	Test	Test	102	289
				Resistance	Capacitance	Number Date		
				0184 SS	125E-12 F	1 N/R		
LM305	NSC	1	Linear, Voltage Regulator	Test	Test	Test	102	252
				0184 SS	1500 Ohms	100E-12 F		
						6 8344		
LM309	NSC	2	Linear, Voltage Regulator	Test	Test	Test	102	252
				0184 SS	1500 Ohms	100E-12 F		
						18 8524		
LM311	NSC	1	Linear, Comparator	Test	Test	Test	102	252
				0184 SS	1500 Ohms	100E-12 F		
						2 8540		
LM317	NSC	2	Linear, Voltage Regulator	Test	Test	Test	102	252
				0184 SS	1500 Ohms	100E-12 F		
						15 N/R		
LM318	NSC	2	Linear, Operational Amplifier	Test	Test	Test	102	252
				0184 SS	1500 Ohms	100E-12 F		
						11 N/R		
LM319	NSC	1	Linear, Comparator	Test	Test	Test	102	252
				0184 SS	1500 Ohms	100E-12 F		
						4 8608		
LM320	NSC	2	Linear, Voltage Regulator	Test	Test	Test	102	252
				0184 SS	1500 Ohms	100E-12 F		
						18 8344		

RAC ESD Database

Part Number	Part ESD Part		Description		Technology														
	Mfr	Class	Description		Failure Test	Test	General	Criteria	Remarks	Remarks	Remarks	Remarks	Remarks	Remarks					
LM323	NSC	2	Linear, Voltage Regulator		Test	Test	Test	Test	Test	Test	Test	Test	Test	Test					
					Source	Date	Type	Resistance	Capacitance	Pulses	Code	Devices	Result	Voltage	Pin	Combination			
					421	0184	SS	1500 Ohms	100E-12 F	18	8616	1	FAILED	3500	N/R		102	252	13
LM324	NSC	1	Linear, Operational Amplifier														Bipolar		
					421	0184	SS	1500 Ohms	100E-12 F	2	8504	1	FAILED	250	INPUTS		102	252	13
LM32800	NSC	2	Linear														Bipolar		
					421	0184	SS	1500 Ohms	100E-12 F	15	N/R	1	FAILED	3000	N/R		102	252	13
LM339	NSC	1	Linear, Comparator														Bipolar		
					421	0184	SS	1500 Ohms	100E-12 F	3	8428	1	FAILED	600	INPUTS		102	252	13
LM340	NSC	3	Linear, Voltage Regulator														Bipolar		
					421	0184	SS	1500 Ohms	100E-12 F	40	8416	1	FAILED	8000	N/R		102	252	13
												1	FAILED	8000	N/R		102	252	13
LM3524	NSC	1	Linear														Bipolar		
					421	0184	SS	1500 Ohms	100E-12 F	3	N/R	1	FAILED	600	PINS 1,2,4,5, AND 16		102	251	13
LM358	NSC	1	Linear, Operational Amplifier														Bipolar		
					421	0184	SS	1500 Ohms	100E-12 F	2	N/R	1	FAILED	250	PINS 2,3,5, AND 6		102	252	13
LM365	NSC	2	Linear, Comparator														Bipolar		
					421	0184	SS	1500 Ohms	100E-12 F	20	8404	1	FAILED	4000	N/R		102	252	13

RAC ESD Database

Part Number	Part ESD		Part Description	Technology																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	Mfr	Class		Bipolar																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
LM393	NSC	1	Linear, Operational Amplifier																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															

RAC ESD Database

Part Number	(Cont'd)	Part ESD		Part Description	Technology
		Mfr	Class		
LM723		FSC	1	Linear, Voltage Regulator	Bipolar
		Test Source	Test Date	Test Resistance	Test Capacitance
		436	1186	SS	100E-12 F
		436	1186	SS	1500 Ohms
		436	1186	SS	1500 Ohms
		436	1186	SS	1500 Ohms
		436	1186	SS	1500 Ohms
		436	1186	SS	1500 Ohms
		436	1186	SS	1500 Ohms
		436	1186	SS	1500 Ohms
LM723		NSC	1	Linear, Voltage Regulator	Bipolar
		436	0688	SS	1500 Ohms
		421	0184	SS	1500 Ohms
		421	0184	SS	1500 Ohms
LM733		NSC	1	Digital, Multivibrator	Bipolar
		421	0184	SS	1500 Ohms
LM741A		RAY	2	Linear, Operational Amplifier	Bipolar
		436	1186	SS	1500 Ohms
LM741CN		NSC	1	Linear, Operational Amplifier	Bipolar
		421	0184	SS	1500 Ohms

RAC ESD Database

Part Number	Part ESD		Part		Description		Technology	
	Mfr	Class	FSC	1	Linear, Operational Amplifier		Bipolar	
LM747A	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Test Number	Test Date
	436	1186	SS	1500 Ohms	100E-12 F	16	N/R	1
	436	1186	SS	1500 Ohms	100E-12 F	13	N/R	2
LM747A	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Test Number	Test Date
	436	1186	SS	1500 Ohms	100E-12 F	16	N/R	1
LM747CN	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Test Number	Test Date
	436	1186	SS	1500 Ohms	100E-12 F	14	N/R	5
LM78L05	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Test Number	Test Date
	421	0184	SS	1500 Ohms	100E-12 F	3	N/R	1
LM833	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Test Number	Test Date
	421	0184	SS	1500 Ohms	100E-12 F	8	N/R	1
LM835	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Test Number	Test Date
	421	0185	SS	1500 Ohms	100E-12 F	2	N/R	1

RAC ESD Database

Part Number	Part	Part ESD		Part Description	Technology														
		Min	Class		Test		Test		Test		Test		Test		Test		Test		Test
MC13421	NSC	2	Linear, Switch	Test	Test	Resistance	Capacitance	Pulses	Code	Number	Date	Devices	Pin	Combination	Voltage	Test	Failure Criteria	Test Remarks	General Remarks
	421	0184	SS	1500 Ohms	100E-12 F	100E-12 F	13	N/R	1	FAILED	2500	N/R					102	252	13
LMC628	NSC	1	Linear														Bipolar		
	421	0184	SS	1500 Ohms	100E-12 F	100E-12 F	1	N/R	1	FAILED	100	PIN 26					102	252	13
LMC660	NSC	1	Linear, Operational Amplifier														Bipolar		
	421	0184	SS	1500 Ohms	100E-12 F	100E-12 F	3	N/R	1	FAILED	500	INPUTS					102	252	13
LMC668	NSC	1	Linear														Bipolar		
	421	0184	SS	1500 Ohms	100E-12 F	100E-12 F	8	N/R	1	FAILED	1500	PINS 1,2, AND 12-14					102	252	13
LMC669	NSC	1	Linear														Bipolar		
	421	0184	SS	1500 Ohms	100E-12 F	100E-12 F	3	N/R	1	FAILED	600	PIN 2					102	252	13
LMC7660	NSC	2	Linear														Bipolar		
	412	0184	SS	1500 Ohms	100E-12 F	100E-12 F	18	N/R	1	FAILED	3500	PINS 2-8					102	252	13
LMF100	NSC	1	Linear, Switch														Bipolar		
	421	0184	SS	1500 Ohms	100E-12 F	100E-12 F	5	N/R	1	FAILED	900	PINS 1-3,19, AND 20					102	252	13
LSI29681	RAY	1	Digital, Memory, PROM														STTL		
	431	N/R	SS	1500 Ohms	100E-12 F	100E-12 F	20	N/R	12	FAILED	900	PIN 23					110	252	13

353

Part Number (Cont'd)	Part ESD		Part Description	Technology											
	Mfr	Class		Failure Criteria	Test Voltage	Pin Combination	Test Result	Number Devices	Date Code	Pulses	Resistance	Capacitance			
LSI29681	RAY	1	Digital, Memory, PROM	110	263	13	110	266	13	110	252	13	110	252	13
	431	N/R	SS	1500 Ohms	100E-12 F	40 N/R	50 N/R	12	12	12	12	12	110	263	13
	431	N/R	SS	1500 Ohms	100E-12 F	50 N/R	50 N/R	12	12	12	12	12	110	266	13
	431	N/R	SS	1500 Ohms	100E-12 F	60 N/R	60 N/R	12	12	12	12	12	110	252	13
	431	N/R	SS	1500 Ohms	100E-12 F	70 N/R	70 N/R	12	12	12	12	12	110	252	13
LT1001MJ8	LTC	1	Linear	110	252	13	110	252	13	110	252	13	110	252	13
	438	0285	GN	1500 Ohms	100E-12 F	10 N/R	10 N/R	5	5	5	5	5	55	252	13
LT1002MJ	LTC	1	Linear	110	252	13	110	252	13	110	252	13	110	252	13
	438	0585	GN	1500 Ohms	100E-12 F	10 N/R	10 N/R	5	5	5	5	5	55	252	13
LT1004MH-1.2	LTC	2	Linear	110	252	13	110	252	13	110	252	13	110	252	13
	438	0385	GN	1500 Ohms	100E-12 F	10 N/R	10 N/R	15	15	15	15	15	55	252	13
LT1005MK	LTC	1	Linear, Operational Amplifier	110	252	13	110	252	13	110	252	13	110	252	13
	438	0385	GN	1500 Ohms	100E-12 F	10 N/R	10 N/R	4	4	4	4	4	55	252	13
LT1007AMJ8	LTC	2	Linear, Voltage Regulator	110	252	13	110	252	13	110	252	13	110	252	13
	438	0285	GN	1500 Ohms	100E-12 F	10 N/R	10 N/R	15	15	15	15	15	55	252	13

RAC ESD Database

Part Number	Part	Part ESD		Part Description	Technology											
		Mfr Class	Number		Bipolar											
LT1009CZ		LTC	1	Linear, Operational Amplifier												
		Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Number Date	Test Devices	Test Result	Test Voltage	Test Pin	Test Combination	Failure Criteria	Test Remarks	General Remarks
		438	0386	GN	1500 Ohms	100E-12 F	10	N/R	10	FAILED	2000	ADJ.	TO V(-), ADJ. TO V(+)	55	252	13
LT1009MH		LTC	1	Linear												
		438	0585	GN	1500 Ohms	100E-12 F	10	N/R	15	FAILED	2000	ADJ.	TO V(-),V(+),V(-)-V(+)	55	252	13
LT1010MH		LTC	2	Linear, Voltage Regulator												
		438	0385	GN	1500 Ohms	100E-12 F	10	N/R	15	PASSED	2000	N/R		55	252	13
LT1011MH		LTC	1	Linear, Operational Amplifier												
		438	0585	GN	1500 Ohms	100E-12 F	10	N/R	15	FAILED	2000	ALL PINS		55	252	13
LT1012MH		LTC	1	Linear, Voltage Regulator												
		438	0385	GN	1500 Ohms	100E-12 F	10	N/R	2	FAILED	2000	IN TO V(-)		55	252	13
LT1013MH		LTC	1	Linear, Voltage Regulator												
		438	0585	GN	1500 Ohms	100E-12 F	10	N/R	12	FAILED	2000	IN +/-,V-A,V-B,IN A AND B		55	252	13
LT1014ACJ		LTC	1	Linear, Voltage Regulator												
		438	0485	GN	1500 Ohms	100E-12 F	10	N/R	15	FAILED	2000	ALL PINS		55	252	13
LT1024ACN		LTC	1	Linear, Voltage Regulator												
		438	0585	GN	1500 Ohms	100E-12 F	10	N/R	1	FAILED	2000	IN TO V(-)		55	252	13

RAC ESD Database

Part Number	Part ESD		Part	Description										Technology				
	Mfr	Class		Mfr	Class	Description	Bipolar					General						
LT1032CJ	LTC	1	Linear, Operational Amplifier	Test	Test	Test	Number	Date	Pulses	Code	Devices	Test	Voltage	Pin	Combination	Failure	Test	General
	438	0585	GN	1500	Ohms	100E-12 F	10	N/R	10	N/R	8	FAILED	2000	IN, STRB., RESP. TO V(-)	55	252	13	
LT1033MK	LTC	2	Linear, Operational Amplifier												Bipolar			
	438	0385	GN	1500	Ohms	100E-12 F	10	N/R	10	N/R	15	PASSED	2000	N/R	55	252	13	
LT1037MJ8	LTC	2	Linear												Bipolar			
	438	0385	GN	1500	Ohms	100E-12 F	10	N/R	10	N/R	15	PASSED	2000	N/R	55	252	13	
LT1055AMH	LTC	1	Linear												Bipolar			
	438	0485	GN	1500	Ohms	100E-12 F	10	N/R	10	N/R	7	FAILED	2000	IN TO V(-)	55	252	13	
LT1055H8	LTC	1	Linear												Bipolar			
	438	0387	GN	1500	Ohms	100E-12 F	10	N/R	10	N/R	6	FAILED	2000	IN TO V(-), IN TO V(+)	55	252	13	
LT107J8	LTC	1	Linear, Operational Amplifier												Bipolar			
	438	C385	GN	1500	Ohms	100E-12 F	10	N/R	10	N/R	9	FAILED	2000	IN TO V(-), IN TO OUT	55	252	13	
LT108H8	LTC	2	Linear, Operational Amplifier												Bipolar			
	438	0285	GN	1500	Ohms	100E-12 F	10	N/R	10	N/R	15	PASSED	2000	N/R	55	252	13	
LT111AJ8	LTC	1	Linear, Comparator												Bipolar			
	438	0785	GN	1500	Ohms	100E-12 F	10	N/R	10	N/R	6	FAILED	2000	IN TO V(-)	55	252	13	

RAC ESD Database

Part Number	Part ESD		Part Description	Technology	
	Mfr	Class		Failure Criteria	Test Remarks
LT117AH	LTC	1	Linear, Voltage Regulator	Bipolar	General Remarks
					55 252 13
LT119H8	LTC	1	Linear, Operational Amplifier	Bipolar	
438	0385	GN	1500 Ohms 100E-12 F	10 N/R	9 FAILED 2000 IN TO V(-), IN TO IN
LT118J8	LTC	1	Linear, Operational Amplifier	Bipolar	
438	1286	GN	1500 Ohms 100E-12 F	10 N/R	9 FAILED 2000 IN TO V(-), IN(-) TO IN(+)
LT119AH	LTC	2	Linear, Comparator	Bipolar	
438	0285	GN	1500 Ohms 100E-12 F	10 N/R	15 PASSED 2000 N/R
LT137AH	LTC	2	Linear, Voltage Regulator	Bipolar	
438	0285	GN	1500 Ohms 100E-12 F	10 N/R	15 PASSED 2000 N/R
LT138AK	LTC	2	Linear, Operational Amplifier	Bipolar	
438	0385	GN	1500 Ohms 100E-12 F	10 N/R	15 PASSED 2000 N/R
LT15CAK	LTC	2	Linear, Voltage Regulator	Bipolar	
438	0385	GN	1500 Ohms 100E-12 F	10 N/R	15 PASSED 2000 N/R
LT1526J	LTC	1	Linear, Voltage Regulator	TTL	
436	1186	SS	1500 Ohms 100E-12 F	10 N/R	1 FAILED 1200 INPUT TO GND

RAC ESD Database

Part Number	Part ESD		Part Description	Technology	
	Mfr	Class		Failure Criteria	Test Remarks
	LT	1	Linear, Voltage Regulator	Bipolar	
LT317AK	LTC	0585 GN	1500 Ohms	100E-12 F	10 FAILED
LT3525AJ	LTC	0585 GN	1500 Ohms	100E-12 F	10 FAILED
LT3527AJ	LTC	0585 GN	1500 Ohms	100E-12 F	10 FAILED
LTC1044CH	LTC	0385 GN	1500 Ohms	100E-12 F	10 FAILED
MC14029B	MOT	1086 SS	1500 Ohms	100E-12 F	10 FAILED
MC14520BCP	MOT	0986 SS	1500 Ohms	100E-12 F	10 FAILED
MC14557B	MOT	1083 SS	1500 Ohms	100E-12 F	10 FAILED

RAC ESD Database

Part Number	Part ESD		Part Description	Technology								
	Mfr	Class			Test Date	Test Type	Test Resistance	Capacitance	Number Pulses	Date Code	Number Devices	Test Result
MC6850	MOT	2	Digital, Transceiver, ACIA	MOS	436	1186 SS	1500 Ohms	100E-12 F	15	8003	1	FAILED
												2500 INPUT TO GND
MC8087	INT	2	Digital, Processing Unit, Central	MOS	436	1186 SS	1500 Ohms	100E-12 F	15	N/R	1	FAILED
												2500 INPUT TO GND
MCA1300PSJ	NSC	1	Digital, Array, PGA	Bipolar	421	0184 SS	1500 Ohms	100E-12 F	5	N/R	1	FAILED
												900 N/R
MCC40118F	SGS	1	Digital, Gate	CMOS	416	0184 SS	1500 Ohms	100E-12 F	3	N/R	10	FAILED
												400 N/R
MCC4069UBF	SGS	1	Digital, Inverter, Buffer	CMOS	416	0284 SS	1500 Ohms	100E-12 F	3	N/R	10	FAILED
												400 N/R
MD82C55A	HAR	3	Digital, Transceiver, Input-Output Port	CMOS	436	1186 SS	1500 Ohms	100E-12 F	18	8709	2	PASSED
												4000 N/R
MD82C55A	MOT	2	Digital, Transceiver, Input-Output Port	CMOS	436	1186 SS	1500 Ohms	100E-12 F	16	N/R	2	FAILED
												3000 GND TO OUTPUT
MF10	NSC	2	Linear	MOS	421	0184 SS	1500 Ohms	100E-12 F	15	N/R	1	FAILED
												3000 N/R

RAC ESD Database

[illegible]

RAC ESD Database

Part Number	Part ESD		Part Description	Technology													
	Mfr	Class		MOS										General			
MM359-b	NSC	1	Digital, Memory, EPROM	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	
				Source	Date	Type	Resistance	Capacitance	Pulses	Code	Devices	Resul	Voltage	Pin	Combination	Criteria	Remarks
MM5020	NSC	1	Digital	421	0184	SS	1500 Ohms	100E-12 F	1	N/R	1	FAILED	200	N/R	102	252	13
				422	0184	SS	0	Ohms	125E-12 F	1	N/R	1	FAILED	200	N/R	102	289
MM5034	NSC	1	Digital, Converter, A/D-D/A	421	0184	SS	1500 Ohms	100E-12 F	3	N/R	1	FAILED	500	N/R	102	252	13
				422	0184	SS	0	Ohms	125E-12 F	1	N/R	1	FAILED	200	N/R	102	289
MM5051	NSC	1	Digital	421	0184	SS	1500 Ohms	100E-12 F	10	N/R	1	FAILED	2000	N/R	102	252	13
				422	0184	SS	0	Ohms	125E-12 F	1	N/R	1	FAILED	200	N/R	102	289
MM5066	NSC	1	Digital	421	0184	SS	1500 Ohms	100E-12 F	10	N/R	1	FAILED	2000	N/R	102	252	13
				422	0184	SS	0	Ohms	125E-12 F	1	N/R	1	FAILED	200	N/R	102	289
MM5081	NSC	1	Digital	421	0184	SS	1500 Ohms	100E-12 F	10	N/R	1	FAILED	2000	N/R	102	252	13
				422	0184	SS	0	Ohms	125E-12 F	1	N/R	1	FAILED	200	N/R	102	289
MM5387	NSC	1	Digital	421	0184	SS	1500 Ohms	100E-12 F	5	N/R	1	FAILED	900	N/R	102	252	13
				422	0184	SS	0	Ohms	125E-12 F	1	N/R	1	FAILED	200	N/R	102	289

RAC ESD Database

Part Number	Part ESD		Part Description	Technology													
	Mfr Class	Class		Test Source	Test Date	Test Type	Resistance	Capacitance	Test Pulses	Number	Date	Devices	Code	Test Voltage	Pin Combination	Failure Criteria	Test Remarks
MM5437	NSC	1	Digital	421	0184	SS	1500 Ohms	100E-12 F	2	N/R	1	FAILED	350	N/R	102	252	13
MM5450	NSC	1	Digital	421	0184	SS	1500 Ohms	100E-12 F	4	N/R	1	FAILED	800	N/R	102	252	13
				422	0184	SS	0 Ohms	15E-12 F	1	N/R	1	FAILED	50	N/R	102	289	13
				MOS													
MM5453	NSC	1	Digital	421	0184	SS	1500 Ohms	100E-12 F	3	N/R	1	FAILED	600	N/R	102	252	13
				421	0184	SS	1500 Ohms	100E-12 F	7	N/R	1	FAILED	1400	N/R	102	252	13
				MOS													
MM574080	NSC	1	Digital, Micro Computer	392	0886	SS	1500 Ohms	100E-12 F	5	N/R	5	FAILED	500	INPUT PINS AND GND & VCC	19	249	13
														5	FAILED	700	INPUT PINS TO GND & VCC
MM58538	NSC	1	Digital	421	0184	SS	1500 Ohms	100E-12 F	2	N/R	1	FAILED	300	N/R	102	252	13
				MOS													
MM58539	NSC	1	Digital	421	0184	SS	1500 Ohms	100E-12 F	1	N/R	1	FAILED	200	N/R	102	252	13
				MOS													
MM58540	NSC	1	Digital	421	0184	SS	1500 Ohms	100E-12 F	1	N/R	1	FAILED	100	N/R	102	252	13
				MOS													

Part Number	Part ESD		Part Description	Technology										
	Mfr	Class			Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Test Code	Test Number	Test Result	Test Voltage
MM58548	NSC	1	Digital	MOS	421	0184	SS	1500 Ohms	100E-12 F	1	N/R	1	FAILED	100 N/R
MM74HC4020	NSC	1	Digital, Memory	HMC	422	0184	SS	0 Ohms	125E-12 F	1	N/R	1	FAILED	200 N/R
MM74HC4538	NSC	1	Digital, Memory	HMC	422	0184	SS	0 Ohms	125E-12 F	1	N/R	1	FAILED	200 N/R
NMC27C32	NSC	2	Digital, Memory, EPROM	CMOS	421	0184	SS	1500 Ohms	100E-12 F	20	N/R	1	FAILED	4000 N/R
					422	0184	SS	0 Ohms	125E-12 F	3	N/R	1	FAILED	600 N/R
NMC61642	NSC	1	Digital, Memory	MOS	421	0184	SS	1500 Ohms	100E-12 F	9	N/R	1	FAILED	1800 N/R
NMC9346N	NSC	1	Digital, Memory, EPROM, EEPROM	MOS	421	0184	SS	1500 Ohms	100E-12 F	10	N/R	1	FAILED	2000 N/R
NS32082	NSC	1	Digital, Processing Unit, Central	MOS	421	0184	SS	1500 Ohms	100E-12 F	10	N/R	1	FAILED	2000 N/R

RAC ESD Database

RAC ESD Database

Part Number	Part ESD		Part		Technology	
	Mfr	Class	Description			
NS455	NSC	1	Digital, Processing Unit, Central		MOS	
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses
421	0184	SS	1500 Ohms	100E-12 F	10 N/R	10 N/R
NS8040	NSC	1	Digital, Processing Unit, Central		MOS	
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses
421	0184	SS	1500 Ohms	100E-12 F	5 N/R	5 N/R
NS8049	NSC	1	Digital, Processing Unit, Central		MOS	
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses
421	0184	SS	1500 Ohms	100E-12 F	8 N/R	8 N/R
NS8050	NSC	1	Digital, Processing Unit, Central		MOS	
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses
421	0184	SS	1500 Ohms	100E-12 F	7 N/R	7 N/R
NS87P50	NSC	1	Digital, Processing Unit, Central		MOS	
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses
421	0184	SS	1500 Ohms	100E-12 F	8 N/R	8 N/R
NS913	NSC	1	Digital, Processing Unit, Central		MOS	
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses
421	0184	SS	1500 Ohms	100E-12 F	10 N/R	10 N/R
OP-07	RAY	1	Linear, Operational Amplifier		Bipolar	
	Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses
437	1083	GN	1500 Ohms	100E-12 F	10 N/R	10 N/R

RAC ESD Database

Part Number	Part	Part ESD		Description	Test										Technology			
		Mfr	Class		Test Type	Resistance	Capacitance	Pulses	Date	Code	Number	Devices	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
OP07A	1	LTC	1	Linear, Operational Amplifier	438	N/R	GN	1500 Ohms	100E-12 F	10	N/R	2	FAILED	2000 IN(+) TO IN(-)	55	252	13	Bipolar
OP07AH8	1	LTC	1	Linear, Operational Amplifier	438	1286	GN	1500 Ohms	100E-12 F	10	N/R	1	FAILED	2000 IN(-) TO IN(+)	55	252	13	Bipolar
OP07H	1	LTC	1	Linear, Operational Amplifier	438	0285	GN	1500 Ohms	100E-12 F	10	N/R	3	FAILED	2000 IN(+) TO IN(-)	55	252	13	Bipolar
OP16CH	1	LTC	1	Linear, Operational Amplifier	438	0385	GN	1500 Ohms	100E-12 F	10	N/R	10	FAILED	2000 IN TO V(-)	55	252	13	Bipolar
OP227EJ	2	LTC	2	Linear, Operational Amplifier	438	0485	GN	1500 Ohms	100E-12 F	10	N/R	15	PASSED	2000 N/R	55	252	13	Bipolar
OP237AJ	2	LTC	2	Linear, Operational Amplifier	438	0485	GN	1500 Ohms	100E-12 F	10	N/R	15	PASSED	2000 N/R	55	252	13	Bipolar
OP27A	2	PRE	2	Linear, Operational Amplifier	436	1186	SS	1500 Ohms	100E-12 F	16	N/R	1	FAILED	3000 INPUT TO GND	5	252	3	Bipolar
OP27A	2	LTC	2	Linear, Operational Amplifier	438	0587	GN	1500 Ohms	100E-12 F	10	N/R	15	PASSED	2000 N/R	55	252	13	Bipolar

RAC ESD Database

Part Number	(Cont'd)	Part ESD		Part Description	Test										Technology					
		Mfr	Class		Test Date	Test Type	Resistance	Capacitance	Pulses	Number	Date	Code	Devices	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks	
OP27A		LTC	2	Linear, Operational Amplifier	438	0687 GN	1500 Ohms	100E-12 F	10	N/R	15	PASSED	2000	N/R	55	252	13			
OP27AH8		LTC	2	Linear, Operational Amplifier	438	1286 GN	1500 Ohms	100E-12 F	10	N/R	15	PASSED	2000	N/R	55	252	13			
OP27H8		LTC	2	Linear, Operational Amplifier	438	1286 GN	1500 Ohms	100E-12 F	10	N/R	15	PASSED	2000	N/R	55	252	13			
P51C56		INT	1	Digital, Memory, EAPROM, EEPROM	428	N/R GN	1500 Ohms	100E-12 F	5	N/R	10	FAILED	1000	N/R	13	252	13			
P8751H		INT	1	Digital, Processing Unit, Central	429	N/R GN	0 Ohms	50E-12 F	3	N/R	10	FAILED	300	N/R	13	237	13			
					428	N/R GN	1500 Ohms	100E-12 F	5	N/R	10	PASSED	1200	N/R	13	252	13			
					429	N/R GN	0 Ohms	50E-12 F	3	N/R	10	PASSED	600	N/R	13	237	13			
PAL10H8		PRE	1	Linear, Array	436	1186 SS	1500 Ohms	100E-12 F	5	N/R	1	FAILED	600	INPUT TO GND	5	252	3			
PA_10H8		MON	1	Linear, Array	436	1186 SS	1500 Ohms	100E-12 F	4	N/R	1	FAILED	500	INPUT TO GND	5	252	3			

RAC ESD Database

Part Number	Part ESD	Part	Mfr	Class	Description	Technology									
						STTL					STTL				
PAL12L10	MON	1	Linear, Array	Test		Test		Test		Test		Failure Criteria	Test Remarks	General Remarks	
				Source	Date	Type	Resistance	Capacitance	Pulses	Code	Devices				Result
PAL16H2MJ	436	1186	SS	1500 Ohms	100E-12 F	3	N/R	2	FAILED	400	INPUT TO OUTPUT	5	252	3	
	436	1186	SS	1500 Ohms	100E-12 F	4	N/R	1	FAILED	500	INPUT TO OUTPUT	5	252	3	
PAL16L2	436	1186	SS	1500 Ohms	100E-12 F	2	N/R	1	FAILED	300	INPUT TO OUTPUT	5	252	3	
	436	1186	SS	1500 Ohms	100E-12 F	8	N/R	1	FAILED	900	INPUT TO GND	5	252	3	
PAL16L8	436	1186	SS	1500 Ohms	100E-12 F	7	N/R	1	FAILED	800	INPUT TO GND	5	252	3	
	436	1186	SS	1500 Ohms	100E-12 F	5	N/R	1	FAILED	600	INPUT TO GND	5	252	3	
PAL16L8A	436	1186	SS	1500 Ohms	100E-12 F	4	N/R	1	FAILED	500	VCC TO GND	5	252	3	
	436	1186	SS	1500 Ohms	100E-12 F	7	N/R	1	FAILED	800	INPUT TO GND	5	252	3	
PAL16L8B	436	1186	SS	1500 Ohms	100E-12 F	4	N/R	1	FAILED	500	VCC TO GND	5	252	3	
	436	1186	SS	1500 Ohms	100E-12 F	7	N/R	1	FAILED	800	INPUT TO GND	5	252	3	
PAL16R4	436	1186	SS	1500 Ohms	100E-12 F	4	8623	1	FAILED	500	INPUT TO GND	5	252	3	
	436	1186	SS	1500 Ohms	100E-12 F	4	8623	1	FAILED	500	INPUT TO GND	5	252	3	

RAC ESD Database

Part Number	Part ESD		Part Description	Technology			
	Mfr	Class		Test	Failure Criteria	Test Remarks	General Remarks
PAL16R6A	MON	1	Linear, Array		STTL		
	Test Date	Test Type	Test Resistance	Test Capacitance	Number Devices	Test Result	Test Voltage
436	1186	SS	1500 Ohms	100E-12 F	5 N/R	1 FAILED	600 INPUT TO GND
PAL20RA10	MON	1	Linear, Array		STTL		
436	1186	SS	1500 Ohms	100E-12 F	12 8643	1 FAILED	1600 INPUT TO OUTPUT
RC139	RAY	1	Linear, Comparator		Bipolar		
432	0783	GN	1500 Ohms	100E-12 F	10 N/R	3 FAILED	2000 INPUT TO GND
433	0783	SS	1500 Ohms	100E-12 F	20 N/R	3 FAILED	2000 INPUT TO INPUT
433	0783	SS	1500 Ohms	100E-12 F	12 N/P	5 FAILED	1000 PINS 6 TO 7
433	0783	SS	1500 Ohms	100E-12 F	24 N/R	2 FAILED	2250 PINS 4 TO 12
432	0783	GN	1500 Ohms	100E-12 F	10 N/R	6 PASSED	2000 N/R
RC148	RAY	1	Linear, Operational Amplifier		Bipolar		
432	0783	GN	1500 Ohms	100E-12 F	10 N/R	3 FAILED	2000 INPUT TO V(-)
433	0783	SS	1500 Ohms	100E-12 F	4 N/R	1 FAILED	500 PINS 5 TO 6
433	0783	SS	1500 Ohms	100E-12 F	8 N/R	6 FAILED	750 PINS 3 TO 11, AND 5 TO 6
433	0783	SS	1500 Ohms	100E-12 F	12 N/R	3 FAILED	1000 PINS 3 TO 11, AND 5 TO 6
REF01CM	LTC	1	Linear		Bipolar		
438	0485	GN	1500 Ohms	100E-12 F	10 N/R	10 FAILED	2000 IN TO GND, TRIM, AND OUT

RAC ESD Database

Part Number	Part	Part ESD		Part Description	Technology
		Mfr	Class		
REF02CH		LTC	1	Linear	Bipolar
Test' Test					

RAC ESD Database

Part Number	Part ESD		Part		Description		Technology	
	Mfr	Class	Test	Test	Test	Test	Failure Criteria	General Remarks
SG1526J	SIL	1	Linear, Voltage Regulator				MOS	
	Test Date	Test Type	Test Resistance	Test Capacitance	Test Pulses	Test Code	Test Devices	Test Voltage
436	1186	SS	1500 Ohms	100E-12 F	13	N/R	1	1800 INPUT TO GND
							1	252
							5	252
							3	3
TL1-24	TEX	3	Linear, Operational Amplifier				Bipolar	
436	1186	SS	1500 Ohms	100E-12 F	18	N/R	2	4000 N/R
							5	252
							3	3
TL084	TEX	1	Linear, Operational Amplifier				Bipolar	
392	1086	SS	1500 Ohms	100E-12 F	1	N/R	5	2000 EACH PIN TO 4 & 11 (+ -)
							19	252
							13	13
TP3020	NSC	1	Linear, Communications, Auto Dialer				Bipolar	
421	0184	SS	1500 Ohms	100E-12 F	3	N/R	1	600 N/R
							102	252
							13	13
TP3040	NSC	1	Linear, Operational Amplifier, General Purpose				Bipolar	
421	0184	SS	1500 Ohms	100E-12 F	4	N/R	1	800 N/R
							102	252
							13	13
TP3054	NSC	1	Linear, Operational Amplifier, General Purpose				Bipolar	
421	0184	SS	1500 Ohms	100E-12 F	4	N/R	1	800 N/R
							102	252
							13	13
422	0184	SS	0 Ohms	125E-12 F	1	N/R	1	200 N/R
							102	289
							13	13
TP3120	NSC	1	Linear, Communications, Digital Interface				Bipolar	
421	0184	SS	1500 Ohms	100E-12 F	7	N/R	1	1400 N/R
							102	252
							13	13

Part Number	Part ESD		Part Description	Time Slot Assigner										Technology				
	Mfr Class	NSC		1	Digital, Controller, Time Slot Assigner	Test	Test Test	Test Resistance	Capacitance	Number Pulses	Date Code	Devices	Test Result	Test Voltage	Pin Combination	Failure Criteria	Test Remarks	General Remarks
TP3155																		
TP3320																		
TP5088																		
TP5116																		
X28256																		
XC401																		
XC402																		

RAC ESD Database

RAC ESD Database

Part Number	Part ESD		Part		Technology	
	Mfr	Class	Description			
XC404	N/R	3	Digital, Flip-Flop			III
Test Source	Test Date	Test Type	Test Resistance	Test Capacitance	Number Pulses	Number Date
245	N/R	SS	100 Ohms	N/R	1	N/R
28581-10CMB	21L	1	Digital, Peripheral Driver, Clock			
436	1186	SS	1500 Ohms	100E-12 F	1	N/R
436	1186	SS	1500 Ohms	100E-12 F	8	N/R
436	1186	SS	1500 Ohms	100E-12 F	3	N/R

Test Result		Test Voltage		Pin Combination		Failure Criteria		Test Remarks		General Remarks	
15	FAILED	49	INJECTOR(+)	INPUT(-)		47	186			21	
1	FAILED	200	INPUT TO GND			5	252			3	
1	FAILED	900	INPUT TO GND			5	252			3	
1	FAILED	400	INPUT TO GND			5	252			3	

Bipolar

RAC ESD Database

END